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The Resources Agency

Department of Water Resources

BULLETIN No. 130-73

HYDROLOGIC DATA: 1973

Volume III: CENTRAL COASTAL AREA



OCTOBER 1974

NORMAN B. LIVERMORE, JR.
Secretary for Resources
The Resources Agency

RONALD REAGAN
Governor
State of California

JOHN R. TEERINK
Director
Department of Water Resources

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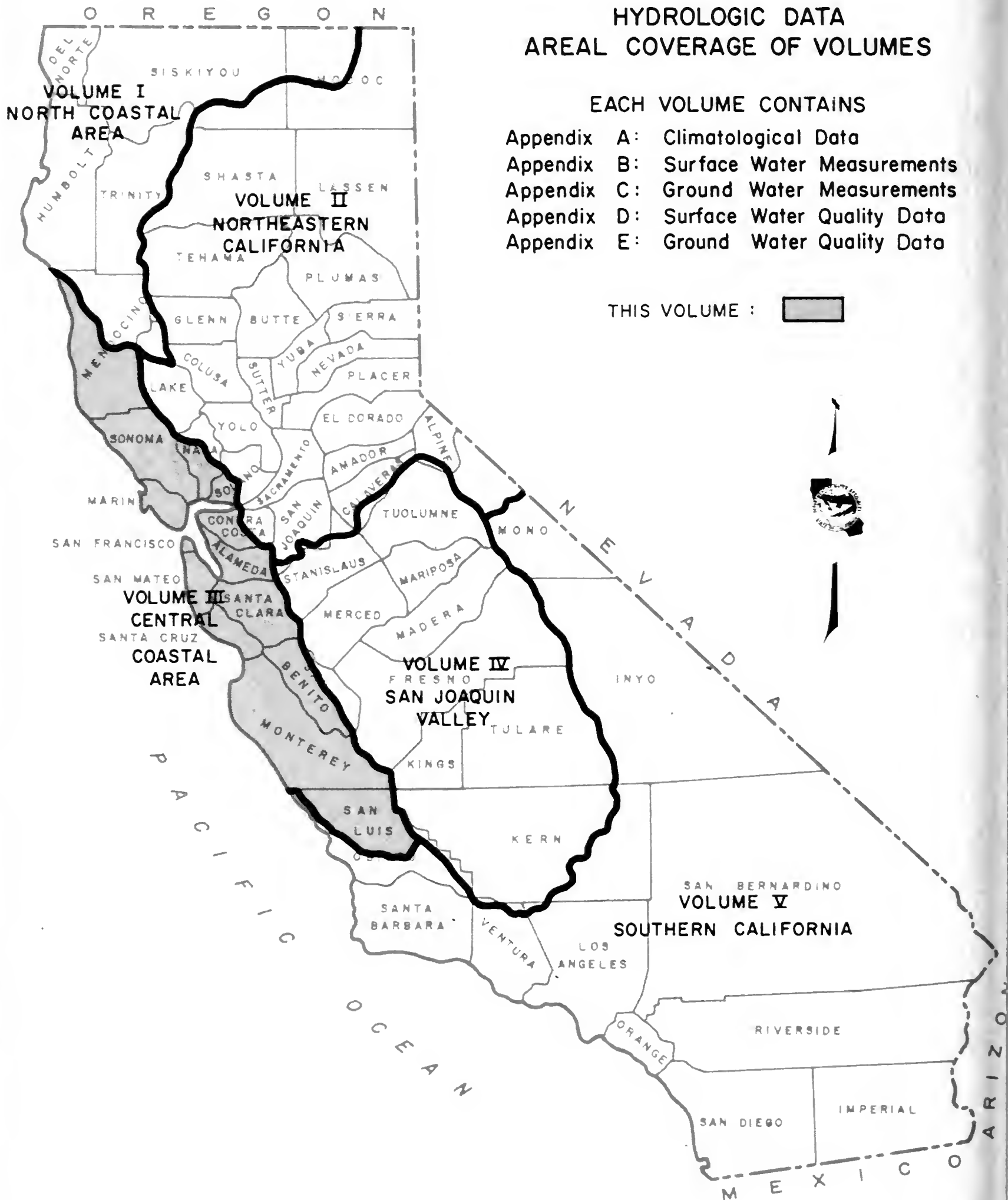
JOHN R. TEERINK
Director
Department of Water Resources

HYDROLOGIC DATA AREAL COVERAGE OF VOLUMES

EACH VOLUME CONTAINS

- Appendix A: Climatological Data
- Appendix B: Surface Water Measurements
- Appendix C: Ground Water Measurements
- Appendix D: Surface Water Quality Data
- Appendix E: Ground Water Quality Data

THIS VOLUME : 



FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy the needs for data on the quality and quantity of water in the State. Bulletin No. 130-73 presents accurate, comprehensive, and timely hydrologic data which provide a more complete knowledge of the factors affecting our environment and are prerequisites for effective planning, design, construction, and operation of water facilities.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.



John R. Teerink, Director
Department of Water Resources
The Resources Agency
State of California
August 13, 1978

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT
1 Inch (in.)	2.54 Centimeters
1 Foot (ft.)	0.3048 Meters
1 Mile (mi.)	1.609 Kilometers
1 Acre	0.405 Hectares
1 Square mile (sq.mi.)	2.590 Square kilometers
1 U. S. gallon (gal.)	3.785 Liters
1 Acre-foot (ac.ft.)	1,233.5 Cubic meters
1 U. S. gallon per minute (gpm)	0.0631 Liters per second
1 Cubic foot per second (cfs)	1.7 Cubic meters per minute
1 Part per million (ppm)	1 Milligram per liter (mg/l)
1 Part per billion (ppb)	1 Microgram per liter (ug/l)
1 Part per trillion (ppt)	1 Nanogram per liter (ng/l)
1 Equivalent part per million (epm)	1 Milliequivalent per liter (me/l)
Degrees Fahrenheit (°F)	$5/9 (°F-32)$ Degrees Celsius (°C)

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State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

RONALD REAGAN, Governor, State of California
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ACKNOWLEDGMENTS

Department data collection activities have been aided by various public and private agencies and by many private citizens. This cooperation is gratefully acknowledged. Special mention is made of the following agencies which have made substantial contributions.

Federal

National Weather Service
U. S. Army, Corps of Engineers
U. S. Army, Post Engineer, Fort Ord
U. S. Bureau of Reclamation
U. S. Coast Guard
U. S. Geological Survey
U. S. Soil Conservation Service

State

Department of Health
Department of Veterans Affairs
Division of Highways
Division of Forestry
Regional Water Quality Control Board,
Central Coast Region, North Coast
Region, and San Francisco Bay Region
University of California,
Agricultural Extension Service
Water Resources Control Board

Local

Alameda County Flood Control and
Water Conservation District
Alameda County Water District
City of San Francisco
City of Vallejo
East Bay Municipal Utility District
Marin County
Mendocino County
Monterey County Flood Control and
Water Conservation District
Napa County Flood Control and
Water Conservation District
San Benito County
San Luis Obispo County Flood Control
and Water Conservation District
Santa Clara Valley Water District
Santa Cruz County
Solano Irrigation District
Sonoma County Flood Control and
Water Conservation District
South Santa Clara Valley Water
Conservation District

ABSTRACT

Report contains tables showing data on climate, surface water flow, change of ground water levels, and surface and ground water quality in the Central Coastal Area for the 1972-73 water year. Figures show the location of climatological observation stations and ground water basins; the fluctuation of average ground water level; fluctuation of water level in wells; the location of surface water measurement and surface water quality stations; and hydrographic unit boundaries.

INTRODUCTION

This bulletin contains data regarding climate, surface water, ground water levels, and surface and ground water quality. The data were collected by the Department of Water Resources and by various organizations cooperating with the Department.

The Department's files contain some data that currently are not being published. Inquiries regarding local data should be directed to the District Offices listed as follows:

Central District
P. O. Box 9137
3251 S Street
Sacramento, CA 95816

San Joaquin District
P. O. Box 2385
3374 East Shields Avenue
Fresno, CA 93723

Northern District
P. O. Box 607
2440 Main Street
Red Bluff, CA 96080

Southern District
P. O. Box 6598
849 South Broadway
Los Angeles, CA 90055

Inquiries regarding statewide data should be directed to the Division Office:

Division of Resources Development
P. O. Box 388
1416 Ninth Street
Sacramento, CA 95802

Federal and local agencies also are maintaining substantial data files. A partial listing follows:

Federal Agencies

U. S. Army, Corps of Engineers
Sacramento District
650 Capitol Mall
Sacramento, CA 95814

U. S. Army, Corps of Engineers
San Francisco District
100 McAllister Street
San Francisco, CA 94102

U. S. Department of the Interior
Geological Survey
Water Resources Division
855 Oak Grove Avenue
Menlo Park, CA 94025

U. S. Department of the Interior
Geological Survey
Water Resources Division
2800 Cottage Way
Sacramento, CA 95825

U. S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825

Local Agencies

Alameda County Flood Control and
Water Conservation District
399 Elmhurst Street
Hayward, CA 94544

Alameda County Water District
38050 Fremont Boulevard
Fremont, CA 94537

City of San Francisco
855 Harrison Street
San Francisco, CA 94107

East Bay Municipal Utility District
2130 Adeline Street
Oakland, CA 94623

Marin Municipal Utility District
220 Nellen Avenue
Corte Madera, CA 94925

Monterey County Flood Control and
Water Conservation District
Court House
Salinas, CA 93901

Napa County Flood Control and
Water Conservation District
1125 First Street
Napa, CA 94558

Pacific Gas and Electric Company
245 Market Street
San Francisco, CA 94106

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118

Appendix A

CLIMATOLOGICAL DATA

This appendix contains monthly precipitation data for certain climate stations for the 1973 water year, October 1, 1972, through September 30, 1973. Additional precipitation data, as well as data concerning air temperature, wind, and evaporation, are available in the National Weather Service's publications "Climatological Data - California"; and, for particular key stations, "Local Climate Data". These publications can be obtained from:

Superintendent of Documents
Government Printing Office
Washington, D. C. 20402

Other agencies within the area covered by this report have established their own supplemental rain gage networks. Some of these agencies are: Alameda County Flood Control and Water Conservation District; City of San Francisco; Contra Costa County Flood Control and Water District; East Bay Municipal Utility District; Marin Municipal Water District; Marin County Department of Public Works; Monterey County; San Benito County; San Luis Obispo County Flood Control and Water District; Santa Clara Valley Water District; Santa Cruz County Department of Public Works; Sonoma County Water Agency; U. S. Department of the Army, Corps of Engineers, San Francisco District.

Each station in this appendix has been assigned an identification number. The letter and first digit denote the hydrographic unit as shown below. The remaining digits denote the sequence of the station in alphabetical order.

Central Coastal Area

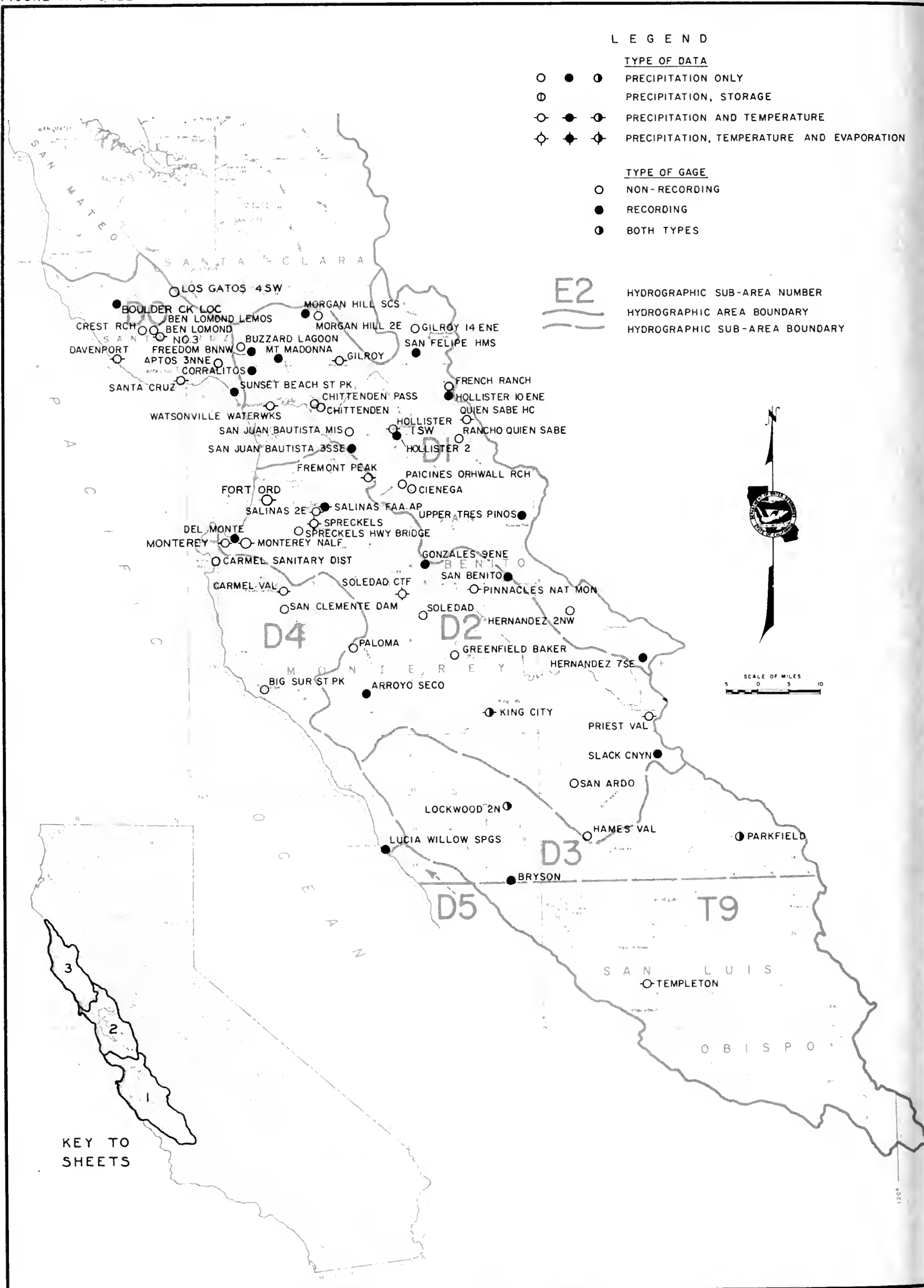
D0 Santa Cruz Coast
D1 Pajaro-San Benito Rivers
D2 Lower Salinas River
D3 Upper Salinas River
D4 Monterey Coast
T9 Upper Salinas River

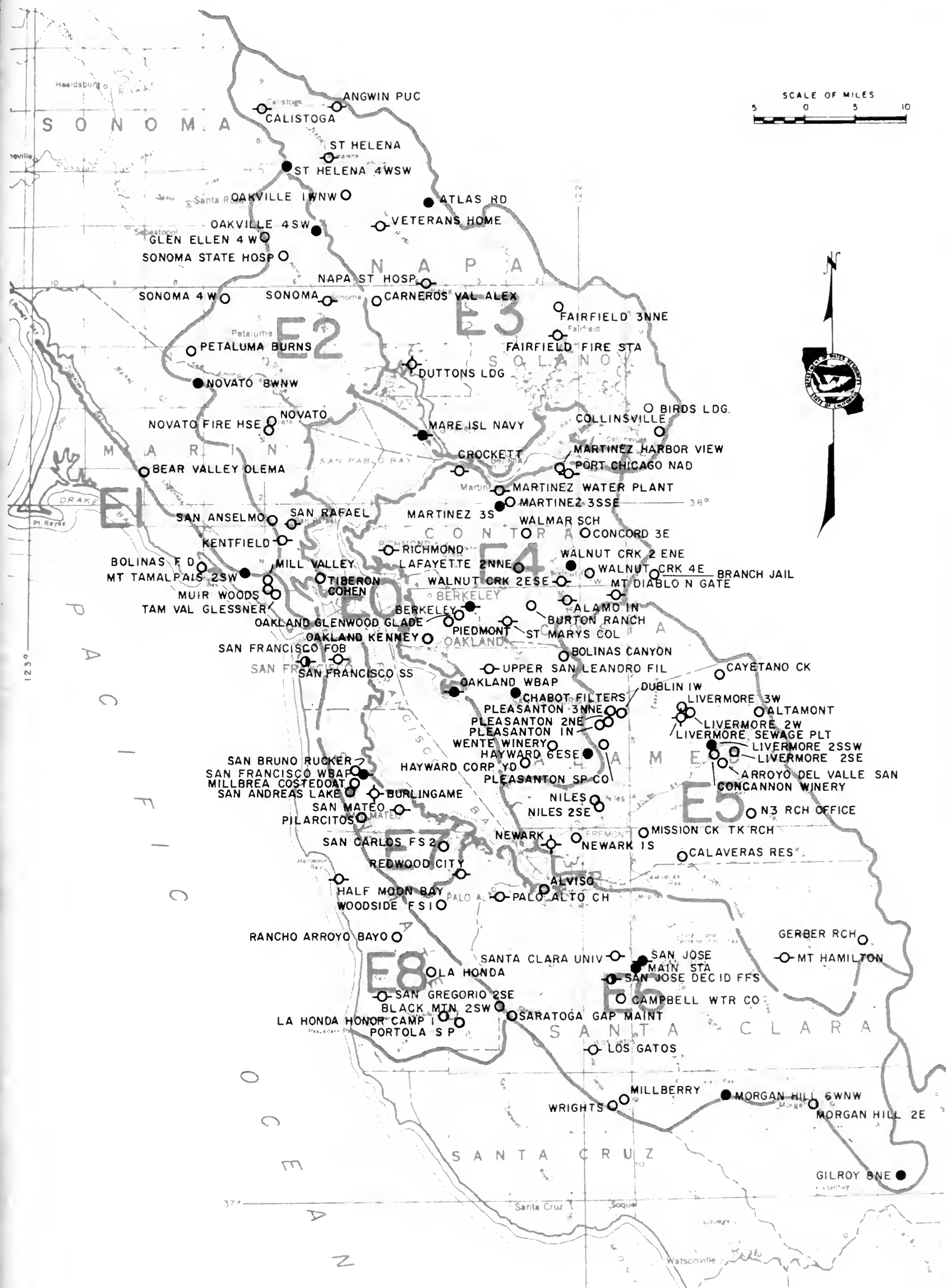
San Francisco Bay Area

E0 San Francisco Bay
E1 Coast-Marin
E2 Marin-Sonoma
E3 Napa-Solano
E4 East Bay
E5 Alameda Creek
E6 Santa Clara Valley
E7 Bayside-San Mateo
E8 Coast-San Mateo

North Coastal Area

F8 Mendocino Coast
F9 Russian River





CLIMATOLOGICAL OBSERVATION STATIONS 1972-73

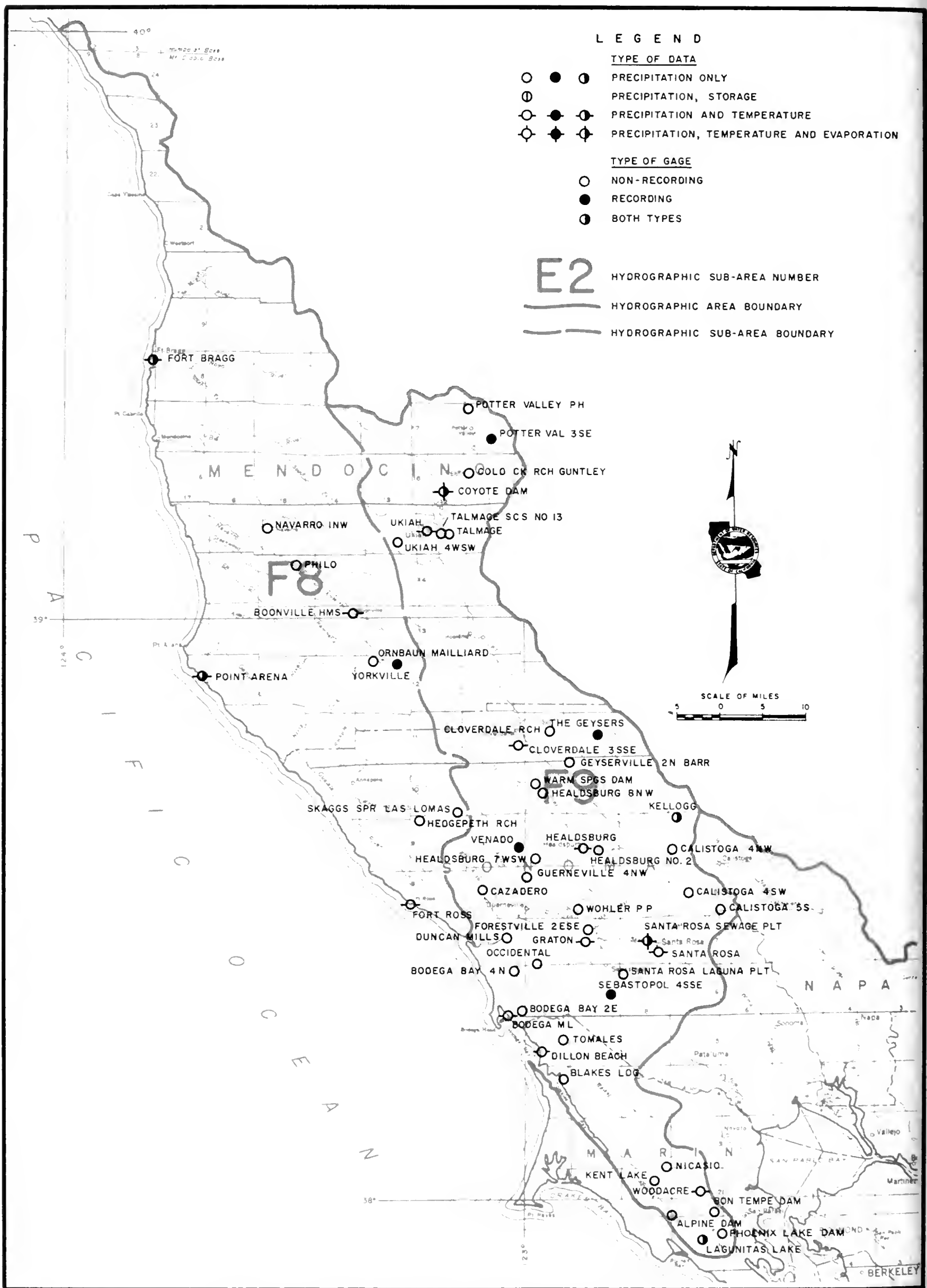


TABLE A-1

PRECIPITATION IN CENTRAL COASTAL AREA
DURING WATER YEAR 1973

This table summarizes monthly precipitations totals for selected stations for the 1973 water year, October 1, 1972, through September 30, 1973. The table shows each station's assigned number in accordance with the explanation given in the introduction to this appendix. Location is shown by latitude and longitude in degrees to the third decimal.

Precipitation values are shown to the nearest hundredth (.01) of an inch. Where Fischer & Porter rain gages are used, a zero is shown in the second decimal place, even though these instruments record to only the nearest tenth (.1) of an inch. The following notations are used to qualify the values:

.00- No record or incomplete record

B Record began

E Wholly or partially estimated

N Record ends

.00T Trace, an amount too small to measure

The county code shown for each station is in accordance with the Standard California County Codes shown below.

Alameda	60	Marin	21	San Mateo	41
Alpine	02	Mariposa	22	Santa Barbara	42
Amador	03	Mendocino	23	Santa Clara	43
Butte	04	Merced	24	Santa Cruz	44
Calaveras	05	Modoc	25	Shasta	45
Colusa	06	Mono	26	Sierra	46
Contra Costa	07	Monterey	27	Siskiyou	47
Del Norte	08	Napa	28	Solano	48
El Dorado	09	Nevada	29	Sonoma	49
Fresno	10	Orange	30	Stanislaus	50
Glenn	11	Placer	31	Sutter	51
Humboldt	12	Plumas	32	Tehama	52
Imperial	13	Riverside	33	Trinity	53
Inyo	14	Sacramento	34	Tulare	54
Kern	15	San Benito	35	Tuolumne	55
Kings	16	San Bernardino	36	Ventura	56
Lake	17	San Diego	90	Yolo	57
Lassen	18	San Francisco	80	Yuba	58
Los Angeles	70	San Joaquin	39		
Madera	20	San Luis Obispo	40	Oregon	61
				Nevada	62
				Arizona	63
				Mexico	64

TABLE A-1 (Cont.)

PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1973

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
07	E40006400	37.866	122.033	410	ALAMO IN	.00-	2.89	5.93	1.75	9.84	6.38	2.60	.22	.01	.00	.00	.00	.00-
21	F90013500	37.941	122.638	680	ALPINE DAM	57.32	7.76	10.06	5.73	14.97	10.86	5.71	.18	.00	.00	.00	.00	2.05
60	E50014600	37.761	121.778	675	ALTAMONT	22.01	2.08	5.24	2.13	5.25	4.21	2.84	.32	.00	.00	.00	.00	.14
43	E60016700	37.433	121.966	8	ALVISO	21.68E	2.37	5.21	1.31	4.61	5.82	2.18	.17	.01	.00	.00E	.00E	.00E
28	E30021200	38.571	122.434	1815	ANGWIN PACIFIC UNION C	51.46	4.35	8.43	4.79	18.04	9.99	4.58	.26	.07	.00	.00	.00T	.95
44	D00024600	37.018	121.884	880	APTOS 3NNE	.00-	3.98	11.92	5.10	10.68	.00-	4.82	.00-	.06	.02	.00	.01	.33
60	E50031200	37.616	121.750	700	ARROYO DEL VALLE SAN	21.78	2.39	4.59	2.34	5.59	3.65	2.69	.28	.00	.00	.00	.00	.20
27	D20032200	36.233	121.483	800	ARROYO SECO	33.96	4.23	6.44	1.50	8.26	11.07	2.46	.00	.00	.00	.00	.00	.00
28	E30036800	38.433	122.250	1660	ATLAS ROAD OUTRA	.00-	3.90	6.50	5.00	.00-	.00-	4.50	.00	.10	.00	.00	.00	.00-
21	F10057200	38.043	122.797	50	BEAR VALLEY OLIVIA	.00-	5.74	9.10	5.78	16.89	9.90	5.98	.00-	.10	.00	.00	.00-	.00-
44	D00067405	37.083	122.100	504	BEN LOMOND LEMOS	.00-	7.34	14.01	3.85	15.40	21.01	6.00	1.16	.00	.00	.00-	.00-	.00-
44	D00067700	37.083	122.066	720	BEN LOMOND NO. 3	65.29	6.97	15.15	3.51	14.55	19.08	5.57	.13	.00T	.00T	.00	.00	.33
60	E40069300	37.866	122.250	299	BEPKLEY	36.57	3.70	6.95	3.13	12.47	6.47	2.94	.14	.01	.00	.00	.00T	.76
27	D40079000	36.250	121.783	235	BIG SUR STATE PARK	60.15	5.20	14.56	2.54	13.76	17.27	6.40	.25	.00T	.00	.00	.00	.12
48	E30081448	38.138	121.868	60	BIRDS LANDING	26.44	3.75	4.61	1.55	7.92	5.47	2.66	.20	.05	.00	.00	.00	.23
43	F60085000	37.300	122.166	2331	BLACK MTN 2 SW	51.98	6.76	8.81	3.24	13.17	13.91	4.88	.14	.07	.00T	.00	.00	.95
21	F90087600	38.194	122.916	40	BLAKES LANDING	.00-	2.95	6.20	5.85	13.00	7.50	3.80	.00	.15	.00	.00-	.00-	.00-
49	F90093302	38.329	122.994		BODEGA BAY 2E	.00-	3.60	14.30	9.70	17.48	9.70	4.60	.35	.45	.00	.00-	.00-	.00-
49	F90093303	38.383	123.050	900	BODEGA BAY 4 N	71.79	5.91	14.32	8.62	22.06	11.00	6.57	.47	.57	.00	.00	.00	2.19
49	F90093400	38.317	123.069	40	BODEGA MARINE LAB	.00-	2.85	8.69	5.23	11.89	7.01	3.59	.25	.00-	.00-	.00-	.00-	.00-
60	E40095404	37.765	122.029	1000	BOLINAS CANYON	33.82	3.15	6.87	3.05	10.05	6.40	3.75	.05	.00	.00	.00	.00	.50
21	F10095430	37.906	122.553		BOLINAS FIRE DIST	.00-	8.06	9.73	7.00	20.14	11.35	5.58	.25	.49	.00	.00-	.00-	.00-
21	F90096900	37.956	122.610	723	BON TEMPE DAM	68.89	8.87	13.40	6.33	18.32	14.79	5.83	.29	.00	.00	.00	.00	1.06
23	F90097300	39.015	123.372	342	BOONVILLE HHS	73.40	3.11	6.16	6.77	13.34	8.09	4.32	.28	.07	.00T	.00	.00	1.26
44	D00100500	37.142	122.195	2175	BOULDER CREEK LOCATELL	47.40	8.40	16.20	5.70	17.70	20.00	7.60	.40	.20	.00	.00	.00	1.20
07	B80104100	37.895	121.863	650	BRANCH JAIL	.00-	.00-	16.30	6.50	19.50	18.30	9.30	.10	.70	.00	.00	.00	1.20
27	D30114200	35.800	121.083	925	BRYSON	36.12	3.27	7.49	1.17	10.55	10.72	2.92	.00	.00	.00	.00	.00	.00
01	E70120600	37.583	122.350	10	BURLINGAME	32.97	5.35	5.54	2.97	8.87	7.14	2.80	.30	.00	.00	.00	.00	.00
47	E40121600	37.866	122.083	530	BURTON RANCH	33.79	3.33	6.21	3.12	10.72	6.97	2.85	.15	.01	.00	.00	.00	.43
44	D10124700	37.033	121.833	1275	BUZZARD LAGOON	51.71	3.99	10.71	5.09	11.06	15.87	3.80	1.19	.00	.00	.00	.00	.00
60	E50128100	37.486	121.818	805	CALAVERAS RESERVOIR	30.96	2.75	6.82	3.03	7.31	6.34	3.89	.39	.02	.00T	.00	.00	.42
28	E30131200	38.584	122.582	364	CALISTOGA	45.54	3.34	7.79	5.56	16.11	8.67	3.17	.10	.05	.00	.00	.00	.75
49	F90131202	38.601	122.650	944	CALISTOGA ANW	48.89	4.24	7.58	5.45	17.65	9.59	3.02	.11	.00	.00	.00	.00	1.25
49	F90131204	38.533	122.633	750	CALISTOGA 4 SW	70.65	4.47	12.38	8.55	25.87	10.25	6.40	.39	.08	.00	.00	.00	2.27
49	F90131206	38.483	122.566		CALISTOGA 5S	58.09	3.86	9.24	4.42	20.67	10.41	5.19	.71	.20	.00	.00	.00	3.39
43	E60137701	37.283	121.950	192	CAMPBELL WATER CO	.00-	3.22	5.74	1.19	5.86	7.09	2.07	.02	.00	.00	.00-	.00-	.00T
27	D40153240	36.539	121.918		CARMEL SANITARY DIST	.00-	3.03	7.30	1.46	6.08	5.25	3.72	.00	.00	.00	.00-	.00-	.00-
27	D40153400	36.483	121.733	425	CARMEL VALLEY	27.69	2.08	5.81	2.31	5.83	6.87	4.54	.16	.02	.00	.00	.00	.07
28	F30153700	38.283	122.358		CARNEROS VALLEY ALFAXAN	.00-	5.83	9.36	3.82	14.49	8.14	3.92	.21	.08	.00	.00-	.00-	.00-
60	F50159700	37.761	121.778	675	CAYETANO CREEK	24.76	3.73	5.57	2.18	5.45	4.83	2.64	.25	.03	.00	.00	.00	.08
49	F90160300	38.533	123.133	1100	CAZADERO 3 W	76.51	4.46	13.21	12.27	22.98	12.92	7.15	.17	.18	.00	.00	.00T	3.17
60	F40164701	37.731	122.128	140	CHAROT FILTEPS	32.25	3.54	6.33	3.15	8.78	6.49	3.34	.05	.13	.00	.00	.00	.44
35	D10173900	36.900	121.600	125	CHITTENDEN PASS	27.83	2.02	6.75	1.91	6.49	6.82	3.52	.20	.00T	.00	.00	.00	.12
44	D10173901	36.902	121.604	104	CHITTENDEN	27.58	1.95	6.76	1.91	6.44	6.77	3.48	.18	.00T	.00	.00	.00	.09
35	D10176600	36.715	121.346	900	CIENEGA	25.19	1.99	4.95	2.83	7.06	5.75	2.50	.11	.00	.00	.00	.00	.00
49	F90183800	38.766	122.983	320	CLOVERDALE 3 SSE	56.20	5.53	7.82	6.11	18.73	11.93	4.57	.21	.07	.00	.00	.25	.98
49	F90184001	38.823	122.951	700	CLOVERDALE RANCH	56.78	4.41	8.29	5.62	18.39	13.62	4.65	.21	.07	.00	.00	.20	1.32
23	F90190150	39.243	123.119	880	COLD CREEK RANCH GUNTIL	.00-	2.75	6.42	6.23	13.16	7.00	4.92	.44	.20	.00	.00-	.00-	.00-
48	F30191900	38.090	121.854	34	COLLINSVILLE	.00-	3.25	4.03	1.65	5.13	4.91	.00-	.00-	.00-	.00-	.00-	.00-	.00-
60	F50195800	37.668	121.748	580	CONCANNON WINERY	19.20	1.20	4.55	2.04	4.71	3.79	2.60	.21	.00	.00	.00	.00	.10
07	F40196200	37.966	121.983	200	CONCORD 3 F	23.48	2.63	4.41	1.96	7.37	4.70	1.93	.32	.02	.00	.00	.00	.14
44	D10204800	36.983	121.900	260	CORRALITOS	.00-	3.40	6.90	2.70	9.70	.00-	4.00	.10	.00	.00	.00	.10	.00
23	F90210500	39.183	123.183	720	COYOTE DAM	25.41	3.12	1.11	6.64	2.08	6.34	3.92	.82	.14	.00	.00T	.00	1.17
07	F40217700	38.033	122.216	12	CROCKETT	30.53	3.28	5.22	2.59	10.64	5.88	2.12	.27	.06	.00	.00	.00	.47
44	D00229000	37.016	122.200	273	DAVENPORT	44.07	5.05	10.15	2.90	7.52	12.55	5.47	.00T	.00T	.02	.00	.00	.41
27	D20236200	36.600	121.866	46	DEL MONTE	22.30	2.40	4.40	1.80	4.80	4.90	3.60	.20	.10	.00	.00	.00	.10
21	F90243700	38.246	122.965	40	DILLON BEACH	.00-	5.20	.00-	6.95	18.35	8.65	4.85	.00-	.10	.05	.00	.00	.00-
60	E50252500	37.698	121.938	450	DURLIN 1 W	34.91	3.68	7.27	2.71	9.22	7.34	3.67	.72	.02	.00	.00	.00	.28
49	F90255000	38.450	123.066	85	DUNCANS MILLS	52.84	4.27	8.01	4.42	21.48	8.70	4.12	.50	.34	.00	.00	.00	1.00
28	E30258000	38.201	122.303	20	DUTTONS LANDING	33.11	3.38	6.67	2.91	11.71	5.32	2.55	.16	.04	.00	.00	.00	.37
48	F30293400	38.260	122.040	34	FAIRFIELD FIRE STATION	33.55	4.60	6.73	1.67	11.54	5.62	2.71	.19	.14	.00	.00	.00	.35
48	F30293500	38.283	122.033	110	FAIRFIELD 3NNE	.00-	4.70	6.30	.00-	.00-	5.50	.00-	.00-	.10	.00	.00	.00	.20
49	F90313700	38.466	122.858	200	FORESTVILLE 2 ESF	49.21	4.61	8.79	6.12	15.11	9.43	4.04	.25	.00	.00	.00	.00	.86
23	F80316100	39.445	123.806	80	FORT BRAGG	44.62	3.18	8.02	6.28	10.80	7.87	5.30	.92	.49	.06	.08	.16	1.46
27	D20318600	36.683	121.766	134	FORT ORD	20.57	1.72	5.02	1.56	3.45	5.48	3.21	.06	.02	.00T	.00T	.00T	.05
49	F80319100	38.516	122.250	116	FORT ROSS	47.28	3.89	8.02	4.72	15.52	6.92	5.64	.29	.33	.04	.07	.07	1.77
44	D10323200	37.050	121.816	1495	FREEDOM 8 NNW	.00-	.00-	.00-	3.79	.00-	.00-	.00-	.00-	.00	.00	.00	.00	.00-
35	D10323800	36.760	121.498	2500	FREMONT PEAK	35.87	2.21	8.54	3.45	7.75	7.56	5.76	.20	.06	.02	.03	.00	.29
35	D10324500	36.948	121.233	1827	FRENCH RANCH	26.14	1.83	7.72	2.09	3.46	6.84	3.75	.30	.00	.00	.00	.00	.15
43	F50338700	37.366	121.486	2140	GERRER RCH	27.88	2.60	6.07	1.80	5.94	8.57	2.46	.31	.00T	.09	.00	.00	.04
49																		

TABLE A-1 (Cont.)

PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1973

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
49	F80388900	38.656	123.210	500	HEDGEPEETH RANCH	65.88	5.24	8.82	8.60	23.58	11.92	5.05	.56	.10	.00	.00	.00	2.01
35	D10392500	36.416	120.916	2160	HERNANDEZ 2 NW	25.70	1.98	5.23	1.88	4.72	8.29	3.46	.14	.00T	.00	.00	.00	.00
35	D10392800	36.300	120.700	2765	HERNANDEZ 7 SE	.00-	2.40	6.00	1.60	5.90	.00-	.00-	.10	.10	.00	.00	.00	.00
35	D10402200	36.833	121.416	279	HOLLISTER 1 SW	20.02	1.40	5.20	1.53	4.69	4.62	2.40	.25	.03	.00	.00	.00	.00
35	D10402500	36.850	121.400	284	HOLLISTER 2	21.20	1.50	5.60	1.70	4.90	4.50	2.70	.30	.00	.00	.00	.00	.00
35	D10403500	36.916	121.233	2578	HOLLISTER 10 ENE	.00-	1.77	7.78	1.81	.00-	.00-	.00-	.00-	.02	.00	.00	.00	.13
49	F90448000	38.666	122.666	1800	KELLOGG	.00-	4.33	9.57	6.32	20.25	11.05	4.04	.29	.05	.00	.00	.00-	.00-
21	F20450000	37.946	122.550	80	KENTFIELD	66.83	8.54	12.41	8.17	19.60	12.19	5.04	.06	.02	.00	.00	.00	.80
21	F90450200	37.998	122.708	360	KENT LAKE	104.46	12.99	17.65	10.71	32.81	18.75	9.47	.06	.15	.00	.00	.00	1.47
27	D20455500	36.200	121.133	320	KING CITY	19.19	1.46	4.28	.79	4.25	6.47	1.94	.00	.00	.00	.00	.00	.00
07	E40463300	37.916	122.100	540	LAFAYETTE 2 NNE	33.00	3.27	5.93	3.02	10.86	6.55	2.73	.31	.01	.00T	.00	.00	.12
21	F90465200	37.946	122.594	785	LAGUNITAS LAKE	73.26	8.97	13.57	6.31	20.38	16.55	6.40	.12	.00	.00	.00	.00	.46
41	E80466000	37.316	122.266	670	LA MONDA	45.06	7.69	8.87	2.93	10.30	9.55	4.92	.19	.06	.00T	.00	.00	.55
41	E80466050	37.266	122.250	350	LA MONDA HONOR CAMP 1	.00-	8.05	8.08	4.49	14.09	14.03	5.85	.26	.11	.01	.00-	.00-	.00-
60	F50499600	37.491	121.805	405	LIVERMORE SEWAGE PLT	22.42	3.19	5.06	2.17	5.05	4.26	2.54	.44	.04	.00	.00	.00	.07
60	F50499700	37.450	121.783	545	LIVERMORE 2 SW	22.47	2.98	4.91	2.22	5.50	3.83	2.63	.29	.03	.00T	.00	.00	.08
60	F50499701	37.691	121.838	365	LIVERMORE 3W	22.22	2.59	5.06	2.17	5.05	4.26	2.54	.44	.04	.00	.00	.00	.07
60	F50499702	37.655	121.744	640	LIVERMORE 2 SE	19.23E	2.22	4.17	2.03	4.68	3.24	2.40	.39	.00	.00	.00	.00	1.0E
60	F50499704	37.694	121.815	395	LIVERMORE 2 W	23.53	3.37	4.40	1.70	5.47	4.73	2.41	.41	.00	.00	.00	.00	.04
27	D30501700	35.966	121.083	1104	LOCKWOOD 2 N	21.77	2.33	4.36	.68	5.49	6.29	2.42	.00	.00	.00	.00	.00	.00
43	E60512300	37.216	121.983	428	LOS GATOS	34.71	3.20	6.81	1.90	9.19	10.87	2.71	.00T	.01	.00	.00	.00	.02
44	D00512500	37.183	122.033	2215	LOS GATOS 4 SW	67.44	6.53	12.93	5.38	16.85	20.20	5.01	.16	.04	.00	.00	.00	.34
27	D40518400	35.883	121.450	360	LUCIA WILLOW SPRINGS	47.08	4.92	10.11	1.29	12.59	13.27	4.76	.12	.00	.00	.00	.00	.02
48	E30533300	38.100	122.269	52	MARF ISLAND NAVY	29.45	2.89	5.48	2.50	10.68	5.22	2.29	.06	.02	.00	.00	.00	.31
07	F40537100	37.966	122.133	225	MARTINEZ 3 S	31.26	3.74	5.88	2.31	10.23	6.15	2.09	.54	.00	.06	.00	.00	.26
07	F40537200	37.966	122.100	280	MARTINEZ 3 SSE	29.33	3.52	5.77	2.57	9.01	5.71	2.32	.37	.00	.00	.00	.00	.06
7	E40537207	38.005	122.124	240	MARTINEZ HARBOR VIEW	.00-	2.96	4.90	2.19	8.20	4.95	1.89	.00-	.00T	.00	.00	.00	.00-
07	F40537800	38.016	122.116	40	MARTINEZ WATER PLANT	26.89	2.99	5.16	2.21	9.31	5.11	1.76	.14	.00T	.00	.00	.00	.21
41	F70562680	37.608	122.404	80	MILLBRAE COSTEROAT	.00-	6.76	7.00	3.52	10.75	8.22	3.70	.13	.08	.00	.00-	.00-	.00-
43	E60563700	37.116	121.918	1750	MILLHERRY	.00-	.40	2.60	1.60	3.20	9.10	.00-	.00	.10	.00	.00	.40	.00
21	E20564705	37.896	122.526	150	MILL VALLEY	.00-	7.15	10.55	5.45	15.85	8.85	5.30	.00	.25	.00	.00-	.00-	.00-
60	E50571851	37.524	121.884	1400	MISSION CRK T K RCH	33.72	3.30	6.70	2.78	7.21	8.55	4.34	.30	.00	.00	.00	.00	.54
27	D40579500	36.600	121.900	335	MONTEREY	27.56	2.46	5.95	2.08	6.05	5.88	4.52	.13	.06	.02	.02	.05	.34
27	D40579600	36.583	121.883	120	MONTEREY AP	.00-	.00-	4.42	1.76	4.40	4.65	1.77	.13	.00T	.00	.00T	.00T	.04
43	E60584400	37.133	121.616	225	MORGAN HILL 2 E	29.23	2.88	6.25	1.33	7.41	8.63	2.41	.27	.01	.00	.00	.00	.04
43	D10584600	37.150	121.766	640	MORGAN HILL 6 WSW	.00-	.00-	.00-	1.90	12.42	13.62	3.48	.06	.00	.00-	.00-	.00-	.00-
43	D10585300	37.133	121.650	350	MORGAN HILL 5 C S	.00-	3.00	7.00	1.20	8.00	9.60	.00-	.00	.00	.00	.00	.00	.00
07	E40591500	37.868	121.934	2070	MOUNT DIABLO NORTH GAT	33.69	3.36	7.17	3.17	9.36	6.89	3.43	.15	.00	.00T	.00	.00T	.16
43	E50593300	37.733	121.650	4206	MOUNT HAMILTON	27.75	2.20	6.16	2.91	5.53	5.59	3.98	.50	.10	.00T	.00	.00	.78
44	D10597300	37.016	121.716	1800	MOUNT MADONNA	44.84	2.88	8.69	3.99	10.53	12.98	5.62	.00	.00	.00	.00	.00	.15
21	E20599600	37.900	122.600	1480	MT TAMALPAIS 2 SW	.00-	.00-	.00-	.00-	20.00	10.50	6.50	.20	.50	.00	.10	.00	3.20
21	E20602700	37.900	122.566	170	MUIR WOODS	56.24	6.11	9.87	6.32	15.85	8.75	5.26	.16	.65	.00T	.13	.00	3.14
28	E30607400	38.277	122.263	73	NAPA STATE HOSPITAL	34.30	3.34	6.95	3.39	11.37	5.61	3.10	.11	.02	.00	.00	.00	.41
23	F90610500	39.163	123.563	220	NAVARRO 1 NW	43.83	2.40	5.08	7.21	14.02	7.94	5.34	.46	.08	.00	.00	.00	1.30
60	E50614400	37.521	122.028	14	NEWARK	22.10	2.87	5.90	1.70	3.79	5.33	2.05	.39	.03	.00	.00	.00	.04
60	F50614402	37.516	122.031	10	NEWARK 1 S	22.20	2.87	5.90	1.70	3.79	5.43	2.05	.39	.03	.00	.00	.00	.04
21	F90618700	38.056	122.696	205	NICASIO	54.22	7.29	8.00	4.99	17.11	11.72	3.93	.56	.00	.00	.00	.00	.62
60	F50619902	37.568	121.983	62	NILES 1 SW	28.09	3.27	6.03	2.33	6.54	6.10	3.32	.40	.00	.00	.00	.00	.10
60	F50619907	37.560	121.953	75	NILES 2SE	29.24	2.90	6.99	2.12	6.62	6.65	3.24	.51	.00	.00	.00	.00	.21
21	E20629000	38.133	122.716	350	NOVATO 8 WNW	.00-	6.59	6.72	3.15	2.70	11.04	3.30	.12	.00	.00	.00	.00	.00-
21	E20629001	38.105	122.536	35	NOVATO	42.03	6.13	5.75	3.18	12.79	10.89	3.18	.11	.00	.00	.00	.00	.00
21	E20629002	38.108	122.561	18	NOVATO FIRE HOUSE	42.03	6.13	5.75	3.18	12.79	10.89	3.18	.11	.00	.00	.00	.00	.00
60	E50630000	37.561	121.883	740	N 3 RANCH OFFICE	27.45	2.35	4.94	2.27	7.14	6.74	3.44	.53	.00	.00	.00	.00	.00
60	E40633260	37.838	122.220	500	OAKLAND GLENWOOD GLADE	.00-	4.64	7.26	3.55	12.88	7.07	.00-	.00-	.02	.00	.00	.00	1.09
60	F40633500	37.733	122.200	3	OAKLAND WR AP	28.25	3.89	5.24	2.51	7.37	5.94	2.78	.05	.05	.00T	.00T	.00	.42
60	E40633600	37.850	122.266	200	OAKLAND KEENEY	34.23	4.25	6.39	3.20	10.43	6.31	2.95	.02	.04	.00	.00	.00	.64
28	F30635100	38.446	122.418	165	OAKVILLE 1 WNW	44.43	3.77	7.11	4.42	16.09	9.12	3.14	.25	.07	.00	.00	.00	.96
28	F30635200	38.398	122.465	1685	OAKVILLE 4 SW NO.2	51.61	4.31	8.22	4.05	18.23	10.80	4.40	.60	.10	.00	.00	.00	.40
49	F90637000	38.412	122.961	960	OCCIDENTAL	66.28	5.64	11.82	7.41	23.16	10.59	5.52	.09	.20	.00	.00	.00	1.85
23	F80651700	38.916	123.301	1300	ORNBAUN MAILLIARD	.00-	3.13	6.13	6.44	13.90	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00-
35	D10661000	36.733	121.766	950	PAICINES OHRWALL RCH	21.37	1.82	4.16	1.87	4.88	5.39	3.14	.11	.00	.00	.00	.00	.00
43	E60664600	37.445	122.139	43	PAJO ALTO CITY HALL	25.75	3.72	6.31	1.49	5.21	6.59	2.27	.16	.00	.00	.00	.00	.00
27	D20665000	36.350	121.500	1835	PALOMA	38.49	5.01	7.39	3.32	6.97	11.43	4.24	.48	.05	.00	.00	.00T	.10
27	D30670300	35.883	120.433	1482	PARKFIELD	21.30	.94	3.95	.59	5.73	7.08	2.75	.26	.00	.00	.00	.00	.00
49	E20682601	38.216	122.713	240	PETALUMA BURNS	.00-	5.52	6.09	4.96	13.98	10.17	3.02	.22	.03	.00	.00-	.00-	.00-
23	F80685101	39.091	123.474	240	PHILO 2 NW	45.47	2.31	5.59	6.88	14.86	8.97	4.49	.28	.10	.00	.00	.00	1.59
21	E20685300	37.955	122.573	175	PHOENIX LAKE DAM	68.40	8.72	12.44	5.47	19.61	15.72	5.52	.20	.00	.00	.00	.00	.72
60	F40685651	37.816	122.233	340	PIEDMONT	36.48	4.36	6.38	3.04	12.01	6.81	3.13	.00	.00	.00	.00	.00	.75
41	E80686300	37.550	122.416	625	PILARCITOS	54.87	7.62	9.45	6.31	13.49	9.81	5.62	.19	.16	.00	.05	.00	1.17
35	D20692600	36.483	121.183	1310	PINNACLES NAT MON	27.65	2.23	5.95	2.00	4.61	9.43	3.25	.16	.00T	.00	.00	.00T	.02

TABLE A-1 (Cont.)

PRECIPITATION IN CENTRAL COASTAL AREA DURING WATER YEAR 1973

CO	STA NO	LAT	LONG	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
27	D20771600	36.033	120.900	440	SAN ARDO	19.18	1.83	3.85	.59	4.83	5.22	2.64	.22	.00	.00	.00	.00T	.00
35	D10771900	36.508	121.081	1355	SAN BENITO	22.87	1.62	4.96	1.38	4.81	7.13	2.97	.00	.00	.00	.00	.00	.00
41	E70772650	37.611	122.432	425	SAN ARUNO RUCKER	.00-	6.59	6.83	3.69	10.04	8.31	3.58	.16	.00	.00	.00-	.00-	.00-
41	E70772800	37.505	122.245	5	SAN CARLOS FIRE STA 2	.00-	4.06	5.67	1.87	7.21	6.22	1.96	.00-	.00T	.00T	.00	.00	.01
27	D40773100	36.436	121.708	600	SAN CLEMENTE DAM	32.85	2.85	5.79	2.66	7.59	9.20	4.38	.29	.02	.00	.00	.00	.07
43	D10775500	37.016	121.333	365	SAN FELIPE HIGHWAY STA	.00-	1.75	6.86	1.20	5.39	.00-	2.57	.88	.00	.00	.00	.00	.00-
80	E80776700	37.766	122.500	300	SAN FRANCISCO SUNSET	32.31	4.87	5.97	3.06	9.26	6.29	2.44	.01	.08	.00	.00	.00T	.33
41	E70776900	37.616	122.383	8	SAN FRANCISCO WB AP	31.08	5.24	5.15	2.40	8.32	6.82	2.93	.11	.07	.00T	.00T	.00T	.04
80	E70777200	37.783	122.416	52	SAN FRANCISCO F O B	34.07	5.41	6.40	3.53	9.38	6.32	2.63	.02	.08	.00	.00	.00	.30
41	E80780700	37.303	122.360	245	SAN GREGORIO 2 SE	40.32	5.92	9.19	3.26	8.68	8.21	4.23	.04	.18	.00	.00T	.09	.52
43	E60782100	37.350	121.900	70	SAN JOSE	22.79	2.19	5.48	1.18	5.12	5.97	2.75	.05	.01	.00T	.00	.00	.04
43	E60782401	37.316	121.950	90	SAN JOSE DECID F F 5	22.25	1.80	5.61	1.01	4.75	6.35	2.70	.03	.00	.00	.00	.00	.00T
43	E60782403			220	SAN JOSE HENORICKS	.00-		8.65	1.03	6.73	8.07	1.86	.03	.00	.00	.00	.00	.00T
35	D10783400	36.816	121.516	615	SAN JUAN BAPTIST 35SF	.00-	2.55	6.66	1.81	6.36	.00-	3.39	.00-	.00	.00	.00	.00	.00
35	D10783500	36.844	121.533	200	SAN JUAN BAPTISTA MI	23.03	1.13	6.44	1.77	5.30	5.06	3.32	.00	.01	.00	.00	.00	.00
41	E70786400	37.566	122.316	30	SAN MATEO	27.27	3.50	4.24	2.53	7.13	7.12	2.68	.00	.00	.00	.00	.00	.07
21	E30788000	37.966	122.533	31	SAN RAFAEL	55.27	6.98	9.92	6.29	16.99	11.07	3.66	.16	.00	.00	.00	.00	.20
43	E60791200	37.347	121.940	85	SANTA CLARA UNIVERSITY	.00-	2.17	5.83	1.99	5.18	6.83	3.01	.00-	.00-	.00-	.00	.00	.02
44	D00791600	36.983	122.016	125	SANTA CRUZ	43.67	3.41	10.54	3.38	7.84	12.99	5.01	.05	.04	.00	.00	.00	.41
49	F90796400	38.439	122.753	20	SANTA ROSA SEWAGE PT	40.43	3.50	6.95	4.91	14.03	6.98	3.16	.22	.03	.00	.00	.00	.65
49	F90796449	38.375	122.767	75	SANTA ROSA LAGUNA PLT	41.62	4.06	6.58	4.73	13.46	8.35	3.55	.16	.05	.00	.00	.00	.68
49	F90796500	38.450	122.700	167	SANTA ROSA	42.91	3.47	6.87	5.12	15.38	7.17	3.48	.65	.03	.00T	.00	.00	.74
49	F90796505	38.400	122.700	160	SANTA ROSA 2S	.00-	3.36	6.39	1.71	15.11	7.55	3.14	.38	.00	.00	.00-	.00-	.00-
43	E60799802	37.258	122.126	2600	SARATOGA GAR MAINT	.00-	8.44	13.88	3.24	17.89	18.90	5.08	.00	.00	.00	.00-	.00-	.00-
49	F90807200	38.351	122.811	145	SERASTOPOL 4 SSE	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00-	.00	.00	.70
49	F90827200	38.677	123.134	1930	SKAGGS SPRING LAS LOMA	73.36	5.48	10.64	7.15	25.39	15.36	6.14	.44	.34	.00	.00	.10	2.32
27	D20827600	36.083	120.666	1730	SLACK CANYON	21.80	2.63	4.12	.63	5.26	6.63	2.49	.04	.00	.00	.00	.00	.00
27	D20833800	36.433	121.316	204	SOLENOID	17.83	1.70	3.74	1.50	3.10	5.31	2.48	.00	.00	.00	.00	.00	.00
49	E20835100	38.283	122.450	20	SONOMA	42.65	4.58	6.92	4.29	13.79	8.60	3.76	.03	.05	.00	.00	.00	.63
49	E20835103	38.350	122.516	440	SONOMA ST HOSPITAL	60.94	5.70	9.95	6.35	20.40	11.95	5.07	.40	.07	.00	.00	.00	1.05
49	F20835108	38.283	122.533	500	SONOMA 4 W	53.21	3.75	10.30	5.20	17.50	9.87	5.54	.17	.05	.00	.00	.00	.83
27	D20844600	36.600	121.683	60	SPRECKELS HWY BRIDGE	21.92	1.82	4.65	2.18	3.86	5.36	3.84	.16	.02	.00T	.00T	.00T	.03
27	D20844601	36.620	121.657	55	SPRECKELS	18.94	1.30	4.15	1.91	3.51	4.43	3.48	.11	.03	.00	.00	.00	.02
44	D10868000	36.900	121.833	85	SUNSET BEACH STATE PAR	.00-	2.50	6.30	2.20	5.40	.00-	.00-	.00-	.00	.00	.00	.00	.10
23	F90877601	39.133	123.183	413	TALMAGE	.00-	3.28	5.93	6.72	12.95	7.83	3.82	.14	.08	.00	.00-	.00-	.00-
23	F90877602	39.133	123.150		TALMAGE SCS NO 13	.00-	3.32	5.07	5.15	10.71	6.78	2.62	.19	.04	.00	.00-	.00-	.00-
21	E20877850	37.878	122.543		TAM VALLEY GLESSNER	.00-	7.34	11.31	6.77	17.76	9.68	5.77	.09	.44	.00	.00-	.00-	.00-
40	D30884900	35.548	120.705	773	TEMPLETON	28.27	1.44	4.13	1.34	8.00	9.84	3.52	.00	.00	.00	.00	.00	.00
49	F90888500	38.800	122.925	1668	THE GEYSERS	65.35	5.71	9.14	5.79	22.71	15.82	4.74	.20	.07	.00	.00	.15	1.12
21	E20892002	37.901	122.483	65	TIBERON COHEN	.00-	5.68	9.71	4.65	13.74	8.63	3.59	.02	.02	.00	.00-	.00-	.00-
21	F90895400	38.247	122.902	80	TOMALES	34.55	3.19	5.15	3.96	12.64	6.68	2.72	.13	.08	.00	.00	.00	.00
23	F90912200	39.150	123.200	623	UKIAH	41.75	3.25	5.78	7.04	12.62	7.75	4.00	.22	.10	.00	.00	.00	.99
23	F90912400	39.133	123.283	1900	UKIAH 4 WSW	54.21	4.01	7.67	9.19	15.70	9.48	5.67	.47	.18	.00	.00	.00T	1.84
60	F40918500	37.766	122.166	390	UPPER SAN LEANDRO FIL	.00-	3.70	7.02	3.85	11.00	6.89	3.77	.09	.00-	.00	.00	.00	.79
60	E40918501	37.774	122.164	394	UPPER SAN LEANDRO FILT	37.17	3.70	7.02	3.85	11.06	6.89	3.77	.09	.00	.00	.00	.00	.79
35	D10918900	36.633	121.033	2050	UPPER TRES PINOS	.00-	1.03	4.24	1.51	.00-	6.37	2.61	.10	.00	.00	.00	.00	.00
49	F90927300	38.616	123.016	1260	VENADO	74.30	6.60	10.70	8.00	26.20	15.00	5.60	.30	.20	.00	.00	.00	1.70
28	E30930500	38.383	122.366	170	VETERANS HOME	46.95	5.12	7.22	4.53	16.10	9.94	3.26	.17	.05	.00	.00	.00	.56
07	E40942000	37.950	122.083	128	WALMAR SCHOOL	.00-	3.29	5.25	2.33	8.96	4.64	2.10	.39	.00	.00	.00	.00	.00-
07	E40942300	37.883	122.033	245	WALNUT CREEK 2 ESE	28.35	2.76	5.45	2.50	8.96	6.00	2.34	.15	.00	.00	.00	.00	.19
07	E40942600	37.900	122.016	220	WALNUT CREEK 2 ENE	24.49	2.55	4.46	2.00	7.93	5.34	1.96	.14	.00	.00	.00	.00	.11
07	E40942700	37.906	121.994	265	WALNUT CREEK 4 E	25.43	2.59	4.80	2.10	7.57	5.94	2.20	.15	.00T	.00T	.00	.00	.08
49	F90944000	38.716	122.981	224	WARM SPRINGS DAM	.00-	4.95	8.05	5.54	17.69	11.37	4.05	.42	.06	.00	.00-	.00-	.00-
44	D10947300	36.933	121.766	95	WATSONVILLE WATERWORKS	30.12	2.62	6.42	2.10	6.38	8.15	3.77	.05	.00	.01	.00	.00	.12
60	E50952500	37.663	121.723	775	WENTE WINERY	20.22	2.09	4.27	2.28	4.80	3.75	2.54	.26	.00	.00	.00	.00	.23
49	F90975600	38.500	122.880		WOHLER PUMPING PLANT	58.83	5.05	10.38	6.36	21.26	9.87	4.21	.24	.20	.00	.00	.00	1.26
21	F90977000	38.006	122.641	430	WOODACRE	57.44	7.26	9.57	5.63	17.02	12.88	4.88	.17	.03	.00	.00	.00	.00
41	E70979200	37.433	122.250	380	WOODSIDE FS 1	.00-	.00-	.00-	.00-	10.22	7.83	.00-	.24	.03	.00	.00	.00	.40
43	E60981400	37.133	121.950	1600	WRIGHTS	58.73	4.85	11.58	3.34	17.28	16.58	4.73	.12	.00	.00	.00	.00	.25
23	F80985100	38.905	121.312	1120	YORKVILLE	64.70	5.10	9.10	9.30	21.20	12.90	5.30	.10	.10	.00	.00	.10	1.50

Appendix B

SURFACE WATER MEASUREMENTS

This appendix contains surface water data for the period from October 1, 1972, through September 30, 1973. These data consist of the amounts of water imported to the report area; daily gage heights; daily tides; and corrections and revisions to previously published reports of surface water data. Station locations are shown on Figure D-1, sheet 2.

In addition to data collected and published by the Department of Water Resources in this appendix, the U. S. Geological Survey collects and publishes data on many additional gaging stations for the same report area. This work is done under a federal-state cooperative contract or through local cooperative arrangements with other local or governmental agencies. The data published in the following reports, together with this report, present a comprehensive analysis of water resources for the area:

1. "Water Resources Data for Colifornia, Part 1: Surface Water Records, Volume I: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins excluding Central Valley". U. S. Geological Survey.
2. Bulletin No. 120, "Water Conditions in California, Fall Issue". Department of Water Resources.
3. Bulletin No. 157, "Index to Stream Gaging Stations in and Adjacent to California, 1970". Department of Water Resources. This index contains the period of record -- with the number of years missing -- and more information for stations in the report area. The index also identifies the agency from which a particular record may be obtained.

TABLE B-1
SURFACE WATER IMPORTS TO THE CENTRAL COASTAL AREA

IMPORT	1973 Water Year												TOTAL
	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	
<u>CITY OF VALLEJO FROM CACHE SLOUGH</u> a													
Total acre-feet	1,075	986	876	771	1,038	783	1,212	1,459	1,621	1,533	1,459	1,443	14,256
Average cubic feet per second	17	17	14	13	19	13	20	24	27	25	24	24	20
Monthly quantities in percent of seasonal	7.6	6.9	6.1	5.4	7.3	5.5	8.5	10.2	11.4	10.8	10.2	10.1	
<u>CONTRA COSTA CANAL</u> b													
Total acre-feet	6,896	4,472	4,136	3,867	3,554	4,085	4,968	11,719	11,538	14,311	13,363	9,951	92,860
Average cubic feet per second	112	75	67	63	64	66	83	191	194	233	217	167	128
Monthly quantities in percent of seasonal	7.4	4.8	4.5	4.2	3.8	4.4	5.4	12.6	12.4	15.4	14.4	10.7	
<u>HETCH HETCHY AQUEDUCT</u> c													
Total acre-feet	22,320	14,233	9,455	2,299	17,421	12,357	15,739	21,790	21,351	25,158	25,481	24,411	212,015
Average cubic feet per second	363	239	154	37	314	201	264	354	359	409	414	410	292
Monthly quantities in percent of seasonal	10.5	6.7	4.5	1.1	8.2	5.8	7.4	10.3	10.1	11.9	12.0	11.5	
<u>MOKELUMNE RIVER AQUEDUCT</u> d													
Total acre-feet	18,792	16,579	14,408	7,516	8,133	10,125	14,750	18,613	20,810	22,274	22,102	18,634	192,730
Average cubic feet per second	306	279	234	122	146	165	248	303	350	362	359	313	260
Monthly quantities in percent of seasonal	9.8	8.6	7.5	3.9	4.2	5.2	7.6	9.6	10.8	11.6	11.5	9.7	
<u>POTTER VALLEY POWERHOUSE FROM EEL RIVER</u> e													
Total acre-feet	17,320	17,950	12,380	16,900	16,850	16,980	18,540	14,650	8,400	9,140	8,990	16,190	174,290
Average cubic feet per second	282	302	201	275	303	276	312	238	141	149	146	272	24
Monthly quantities in percent of seasonal	9.9	10.3	7.1	9.7	9.7	9.8	10.6	8.4	4.8	5.2	5.2	9.3	
<u>PUTAH SOUTH CANAL</u> b *													
Total acre-feet	5,077	2,477	2,297	1,492	1,743	3,999	12,714	35,673	37,508	37,324	35,651	20,960	196,910
Average cubic feet per second	83	42	37	24	31	65	214	580	630	607	580	352	27
Monthly quantities in percent of seasonal	2.6	1.3	1.2	0.8	0.9	2.0	6.4	18.1	19.0	19.0	18.1	10.6	
<u>SOUTH BAY AQUEDUCT</u>													
Total acre-feet	6,732	8,229	9,193	3,556	263	397	4,602	11,515	12,714	15,008	16,550	8,406	97,160
Average cubic feet per second	109	138	150	58	5	6	77	187	214	244	269	141	13
Monthly quantities in percent of seasonal	6.9	8.5	9.5	3.7	0.3	0.4	4.7	11.9	13.1	15.4	17.0	8.6	

- a Data furnished by City of Vallejo.
b Data furnished by U. S. Bureau of Reclamation.
c Data furnished by the City of San Francisco.
d Data furnished by East Bay Municipal Utility District.
e Data furnished by U. S. Geological Survey.
* Amounts are total diversion into the canal; an unknown portion of this is imported to the Central Coastal Area.

TABLE B-2
DAILY GAGE HEIGHT
(IN FEET)

WATER YEAR	STATION NO.	STATION NAME
1973	E31400	RECTOR RESERVOIR NEAR YOUNTVILLE

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	344.98	345.66	NR	NR	370.35	NR	370.20E	370.02	366.94	362.98	358.42E	353.83E	1
2	344.98	345.65	NR	NR	370.37	NR	370.15	370.00	366.81	362.82	358.28	353.69E	2
3	344.97	345.72	NR	363.07	370.52	NR	370.14	370.00	366.67	362.68	358.12	353.53E	3
4	344.97	345.73	NR	363.12	370.63	NR	370.14	369.97	366.54	362.54	357.99	353.38E	4
5	344.97	345.75	NR	363.21	370.56	370.29	370.13	369.96	366.47	362.39	357.82	353.28E	5
6	344.94	345.76	354.72	363.27	370.80	370.35	370.12	369.96	366.33	362.23	357.68	353.04E	6
7	344.93	345.82	354.91	363.33	370.62	370.33	370.12	369.96	366.18	362.08	357.55	352.92E	7
8	344.92	NR	354.96	363.75	370.50	370.32	370.12	369.90	366.04	361.95	357.39	352.76E	8
9	344.95	NR	NR	367.23	370.60	370.30	370.11	369.84	365.88	361.82	357.25	352.61E	9
10	344.96	NR	NR	368.83	370.69	370.29	370.11	369.73	365.77	361.68	357.12	352.47E	10
11	345.03	NR	NR	370.92	370.53	370.26	370.11	369.62	365.56	361.57	356.97E	352.32E	11
12	345.09	NR	NR	370.70	370.60	370.24	370.11	369.49	365.40	361.42	356.79E	352.18E	12
13	345.11	NR	NR	370.40	370.48	370.21	370.11	369.38	365.26	361.29	356.65E	352.01E	13
14	345.17	NR	NR	370.30	370.54	370.21	370.11	369.25	365.10	361.17	356.53E	351.99	14
15	345.30	NR	NR	370.38	370.45	370.20	370.11	369.13	364.99	361.04	356.37E	351.82	15
16	345.44	NR	NR	370.78	370.38	370.20	370.11	369.01	364.86	360.89	356.25E	351.69	16
17	345.57	NR	NR	370.50	370.34	370.22	370.11	368.87	364.72	360.72	356.07E	351.58	17
18	345.60	NR	NR	370.81	370.30	370.21	370.11	368.74	364.60	360.60	355.96E	351.43	18
19	345.61	NR	NR	370.45	370.28	370.22E	370.11	368.62	364.50	360.43	355.78E	351.30	19
20	345.62	NR	NR	370.35	370.27	370.25E	370.09	364.49	364.38	360.29	355.65E	351.18	20
21	345.63	NR	NR	370.35	370.26	370.26E	370.09	368.37	364.25	360.13	355.45E	351.06	21
22	345.64	NR	NR	370.32	370.29	370.27E	370.09	368.23	364.12	359.98	355.28E	350.97	22
23	345.67	NR	NR	370.29	370.28	370.28E	370.08	368.11	364.02	359.81	355.15E	350.84	23
24	345.70	NR	NR	370.27	NR	370.28E	370.08	367.99	363.90	359.64	355.02E	350.71	24
25	345.70	NR	NR	370.34	NR	370.28E	370.08	367.89	363.80	359.48	354.86E	350.56	25
26	345.70	NR	NR	370.31	NR	370.27E	370.08	367.76	363.68	359.37	354.73E	350.43	26
27	345.69	NR	NR	370.31	NR	370.26E	370.09	367.62	363.57	359.25	354.57E	350.26	27
28	345.69	NR	NR	370.30	NR	370.23E	370.05	367.50	363.42	359.10	354.43E	350.12	28
29	345.67	NR	NR	370.32		370.21E	370.04	367.36	363.28	358.92E	354.27E	349.97	29
30	345.67	NR	NR	370.40		370.20E	370.03	367.23	363.11	358.75E	354.13E	349.84	30
31	345.67		NR	370.37		370.20E		367.09		358.60E	353.97E		31

MAXIMUM INSTANTANEOUS GAGE HEIGHTS

E — ESTIMATED
NR — NO RECORD
NF — NO FLOW

DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE	DATE	TIME	STAGE
1-18-73	0715	372.69									

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
38 26 24	122 20 36	SE 19 7N 4W					MAY 1948-DATE	5-48		0.00	USCGS

Rector Reservoir is located on Rector Creek about 3 miles northeast of Yountville. Gaging station is located on the outlet tower of the reservoir. Elevation of reservoir floor is 250 feet. Spillway elevation is 370 feet.

TABLE B-3 (CONTINUED)

DAILY TIDES

891110 SACRAMENTO RIVER AT COLLINSVILLE
(OCTOBER 1, 1972, THROUGH MARCH 30, 1973)

DATE	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DATE
1	2.07 3.60	5.38 6.16	1.94 2.04	5.41	4.55 6.04	2.92 1.99	4.54 6.15	3.65 1.64	NR	NR	NR	NR	1
2	2.19 3.28	5.43 6.13	4.70 5.47	2.09 1.94	4.90 6.39	3.46 2.07	4.87 6.50	3.84 1.98	5.32 6.52	3.76	5.61 6.41	3.76 2.44	2
3	2.31 3.14	5.63	4.89 5.87	2.59 2.09	5.05 6.53	3.67 2.40	5.22 6.54	3.89 1.84	2.09 3.84	5.63 6.80	5.77 6.77	3.58 2.83	3
4	6.03 5.81	2.55 2.84	5.15 6.06	3.05 2.00	5.49 6.85	4.08 2.14	5.06 6.47	3.84 1.72	2.46 3.88	6.05 6.92	6.23 6.69	3.51 2.89	4
5	5.74 5.69	2.40 2.38	4.90 5.88	3.01 1.67	5.15 6.54	3.95 1.97	5.04 6.29	3.63 1.65	2.56 3.44	6.05	6.38 6.46	3.30 2.96	5
6	5.51 5.82	2.53 2.31	4.78 6.06	3.20 1.75	5.71 6.77	4.33 2.16	4.98 6.19	3.47 1.74	6.28 6.27	2.46 3.58	6.69 6.48	3.39 3.21	6
7	5.54 6.26	2.92 2.59	4.94 6.39	3.64 1.86	5.41 6.85	4.33 2.21	5.21 5.93	3.41 1.68	6.40 6.78	3.28	6.76 6.02	3.01 3.44	7
8	5.56 6.22	3.26 2.37	4.79 5.85	3.54 1.48	5.33 6.36	4.17 1.74	5.17 5.73	3.19	NR	NR	6.95 5.74	2.84 3.78	8
9	5.37 6.36	3.37 2.39	4.63 5.81	3.64	4.96 5.84	3.85	NR	NR	5.30 6.65	3.36 2.97	6.98 5.30	2.77	9
10	5.29 6.27	3.65 2.31	1.61 4.03	4.98 5.92	1.55 3.75	4.91 5.47	NR	NR	5.31 7.27	4.38 3.29	3.84 2.61	6.62 5.38	10
11	5.13 6.15	3.85	2.03 4.35	5.38 5.80	1.57 3.70	5.20 5.29	NR	NR	5.53 7.62	4.81	4.32 2.45	6.72 5.15	11
12	2.17 4.11	4.94 6.12	1.73 3.89	4.93 5.15	1.65 3.25	5.23 4.61	NR	NR	3.58 4.91	5.81 7.41	4.36 2.22	6.38 5.20	12
13	2.06 4.22	4.81 6.09	1.57 4.38	5.18 5.57	1.53 2.83	5.37 4.33	NR	NR	3.22 5.00	6.09 7.36	4.36 1.84	6.20 4.96	13
14	2.15 4.37	4.96 5.80	2.27 3.84	5.81 5.30	1.89 1.85	5.33 3.80	NR	NR	2.91 4.61	5.99 7.60	3.44 1.52	5.80	14
15	2.34 4.63	5.33 5.81	2.21 3.34	5.86 5.54	2.05 1.67	5.60 3.99	NR	NR	3.00 4.17	6.06 7.29	5.14 5.94	3.18 1.65	15
16	2.04 3.88	5.19 5.39	2.71 3.00	6.29 5.36	2.55 1.50	6.00	NR	NR	2.73 3.85	6.11 7.08	5.35 6.02	2.82 1.94	16
17	1.90 3.27	5.28 5.47	2.95 2.76	6.66	4.36 6.71	3.15 1.76	NR	NR	2.67 3.57	6.18 6.82	5.79 6.03	2.70 2.22	17
18	2.11 2.92	5.53 5.60	5.50 5.86	3.17 2.46	4.77 6.86	3.35 1.76	NR	NR	2.62 3.34	6.20 6.58	5.90 5.79	2.38 2.27	18
19	2.49 2.78	5.90	5.39 7.00	3.35 2.10	5.16 7.11	3.58 1.75	NR	NR	2.74 3.17	6.37 6.14	6.02 5.90	2.29 2.92	19
20	5.71 6.09	2.69 2.51	5.32 6.96	3.38 1.84	5.15 7.04	3.52 1.70	NR	NR	2.85 3.13	6.37	6.56 5.81	2.56 2.88	20
21	5.53 6.12	2.68 2.00	5.26 6.99	3.54 1.71	5.25 7.04	3.59 1.98	NR	NR	5.83 6.47	3.14 3.13	6.26 5.51	2.35 3.12	21
22	5.21 6.31	2.75 1.81	5.32 7.05	3.70 1.80	5.82 6.99	3.86	NR	NR	5.63 6.49	3.61 2.98	6.05 4.86	1.84 3.22	22
23	5.14 6.49	2.94 1.73	5.42 6.93	3.73	2.00 3.47	5.61 6.42	NR	NR	5.06 6.23	3.73 2.90	5.80 4.64	1.85 3.58	23
24	5.14 6.69	3.26 1.84	1.84 3.66	5.39 6.40	1.94 3.16	5.62 5.60	NR	NR	5.04 6.86	4.60 3.55	5.62 4.48	1.86 3.85	24
25	5.15 6.68	3.50	1.61 3.31	5.24 5.70	1.60 2.89	5.42 5.05	NR	NR	5.00 6.19	4.52 2.79	5.54 4.55	2.03	25
26	1.91 3.86	5.27 6.75	1.42 3.21	5.21 5.39	1.72 2.69	5.51 4.65	NR	NR	NR	NR	4.16 2.07	5.42 4.68	26
27	2.05 3.93	5.33 6.35	1.67 3.09	5.60 5.09	2.31 2.88	6.06 4.81	NR	NR	NR	NR	4.20 1.84	5.19 4.63	27
28	1.90 3.71	5.28 5.99	2.00 2.72	5.72 4.75	3.07 2.32	6.17 4.24	NR	NR	NR	NR	3.65 1.29	4.78	28
29	1.74 3.05	5.06 5.01	2.22 2.14	5.58 4.49	3.09 1.99	6.03	NR	NR			4.30 4.53	2.95 1.26	29
30	1.17 2.43	4.74 4.80	2.55 1.98	5.81	4.31 5.96	3.39 1.68	NR	NR			4.53 4.87	2.64 1.40	30
31	1.62 2.34	5.21 4.81			4.41 6.06	3.53 1.47	NR	NR			4.93 4.99	2.23 1.63	31
MAXIMUM	6.75		7.05		7.11		NR		NR		NR		MAXIMUM
MINIMUM	1.17		1.42		1.47		NR		NR		NR		MINIMUM

NR - NO RECORD

LOCATION: LAT. 38 04 25, LONG. 121 51 18, SW SEC. 27, T3N, R1E, MDB&M
0.4 MILE SOUTHWEST OF COLLINSVILLE, 3.3 MILES NORTHEAST OF PITTSBURG.

PERIOD OF RECORD: 1929 TO DATE

TABLE B-3 (CONTINUED)

DAILY TIDES

891110 SACRAMENTO RIVER AT COLLINSVILLE
(APRIL 1, 1973, THROUGH SEPTEMBER 30, 1973)

DATE	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DATE
1	5.13 4.84	1.87 1.34	6.09 4.87	1.52 2.44	7.18 5.33	1.76 3.71	6.76 5.03	1.44 3.08	5.93 5.59	1.95 2.70	2.30 2.56	4.98 5.87	1
2	4.93 4.51	1.19 1.39	6.16 4.78	1.28 2.65	7.15 5.30	1.71 3.58	6.55 5.07	1.51 2.87	5.50 5.72	2.02	2.20 2.86	4.70 5.76	2
3	5.25 4.44	0.99 1.58	6.31 4.88	1.11 3.08	6.94 5.35	1.66 3.49	6.02 5.10	1.36 2.71	2.63 2.23	5.19 5.76	2.08 3.22	4.45 5.73	3
4	5.55 4.62	0.98 2.12	6.63 5.17	1.38 3.34	6.58 5.36	1.59 3.39	5.55 5.18	1.27	2.43 2.52	4.81 5.97	2.13 3.97	4.63 6.24	4
5	5.97 4.84	1.14 2.75	6.60 5.00	1.22 3.34	6.20 5.29	1.48	2.51 1.63	5.11 5.54	2.46 3.07	4.64 6.12	2.27 3.84	4.72 5.76	5
6	6.34 4.81	1.37 3.04	6.40 4.78	0.99 3.11	3.02 1.27	5.45 5.35	2.59 1.87	4.75 5.66	2.35 3.59	4.54 6.17	1.76 3.53	4.45 5.53	6
7	6.25 4.57	1.10 3.14	5.99 5.00	1.08	2.74 1.37	4.86 5.49	2.25 2.13	4.25 5.70	2.21 3.81	4.59 6.19	1.54 3.24	4.51 5.46	7
8	5.90 4.52	0.96	3.12 0.88	5.55 4.88	2.41 1.79	4.53 5.78	1.97 2.62	4.03 5.83	2.10 3.95	4.72 6.12	1.40 2.99	4.64 5.55	8
9	3.38 1.01	5.71 4.70	2.75 0.93	5.00 4.99	2.21 2.50	4.41 6.05	1.79 3.14	4.10 6.05	1.90 3.72	4.70 6.13	1.53 3.17	4.92	9
10	3.37 1.09	5.45 4.98	2.41 1.09	4.60 5.24	2.11 3.07	4.56 6.32	1.87 3.58	4.47 6.23	1.72 3.53	4.71	5.87 5.16	2.07 2.79	10
11	3.15 1.28	5.37 5.13	2.16 1.61	4.62 5.64	2.08 3.41	4.75 6.35	1.82 3.83	4.69 6.40	6.12 4.87	1.77 3.53	5.65 5.13	1.92 2.48	11
12	2.69 1.53	5.27	2.12 2.17	4.78 5.85	1.76 3.46	4.71	1.81 3.90	4.90	6.21 4.92	1.82 3.23	5.55 5.30	1.98 2.33	12
13	5.40 5.23	2.39 1.71	2.05 2.55	4.95	6.32 4.78	1.67 3.70	6.51 5.11	2.02 4.15	6.07 4.88	1.77 2.88	5.40 5.52	2.17 2.24	13
14	5.43 4.94	1.86 1.75	6.05 5.01	1.89 2.96	6.31 4.65	1.58 3.49	6.65 5.16	2.10 3.90	5.94 5.01	1.82 2.77	5.20 5.63	2.24 2.00	14
15	5.51 4.94	1.66 1.97	6.14 4.78	1.64 2.99	6.03 4.63	1.22 3.69	6.53 5.04	1.89 3.72	5.78 5.16	1.97 2.71	4.98 5.82	2.43 1.96	15
16	5.61 4.85	1.46 2.21	6.03 4.69	1.42 3.10	6.24 4.73	1.39 3.69	6.36 5.09	1.84 3.52	5.55 5.31	1.95 2.53	4.84 5.98	2.71	16
17	5.75 4.88	1.42 2.78	6.05 4.71	1.41 3.38	6.16 4.57	1.27 3.36	6.14 5.11	1.83 3.35	5.26 5.51	2.09 2.44	1.90 2.89	4.64 6.00	17
18	5.66 4.57	1.07 2.88	6.19 4.98	1.48 3.89	5.66 4.49	1.01 3.26	5.92 5.16	1.82 3.11	5.02 5.65	2.31	1.76 3.24	4.50 6.06	18
19	5.77 4.44	0.97 2.87	6.42 5.04	1.65 3.83	5.52 4.70	1.10 3.30	5.54 5.20	1.78 2.89	2.26 2.51	4.67 5.77	1.69 3.58	4.56 6.06	19
20	5.41 4.21	0.83 3.08	6.13 4.81	1.39 3.72	5.35 4.81	1.16 3.16	5.16 5.40	1.88	1.99 2.77	4.31 5.93	1.59 3.33	4.80 5.87	20
21	5.42 4.27	0.85 3.32	5.82 4.96	1.39 3.87	5.11 5.14	1.36	2.71 1.90	4.64 5.52	1.88 3.31	4.24 6.09	1.40 2.98	4.66 5.81	21
22	5.35 4.49	0.97 3.77	5.63 4.94	1.36	3.30 1.66	4.88 5.28	2.34 2.21	4.24 5.82	1.68 3.39	4.24 6.20	1.51 2.88	4.95 5.81	22
23	5.38 4.59	1.17	3.73 1.34	5.17 5.04	2.70 1.72	4.28 5.41	2.10 2.69	4.04 5.94	1.52 3.53	4.48 6.24	1.59 2.55	5.06	23
24	3.95 1.20	5.13 4.65	3.41 1.32	4.69 5.12	2.21 2.17	4.04 5.77	1.72 2.95	3.95 6.06	1.44 3.19	4.56 6.30	5.68 5.38	1.82 2.35	24
25	3.83 1.31	4.85 4.86	3.10 1.70	4.50 5.46	1.89 2.54	4.02 6.09	1.43 3.29	4.14 6.42	1.55 2.93	4.81	5.52 5.32	1.74 1.87	25
26	3.54 1.43	4.69 5.14	2.64 1.77	4.23 5.51	1.64 3.04	4.21 6.42	1.52 3.69	4.57 6.97	6.25 5.13	1.62 2.92	5.24 5.34	1.82 1.65	26
27	3.09 1.75	4.87 5.51	2.04 1.92	4.13 5.62	1.62 3.42	4.51 6.83	1.94 3.71	5.07	6.28 5.17	1.79 2.47	5.05 5.53	2.04 1.64	27
28	2.68 2.06	4.99 5.75	1.55 2.31	4.20 6.03	1.80 3.77	4.99	6.97 5.16	1.97 3.43	5.90 5.29	1.69 2.29	5.00 5.75	2.39 1.73	28
29	2.15 2.14	4.87	1.55 2.93	4.60 6.58	7.06 5.01	1.69 3.57	6.85 5.19	1.90 3.10	5.72 5.59	1.90 2.45	4.97 5.86	2.77 1.87	29
30	5.98 5.02	1.85 2.32	1.83 3.75	5.21	6.97 5.04	1.57 3.32	6.54 5.25	1.82 2.82	5.66 5.91	2.43 2.46	4.96 6.03	3.20	30
31			7.19 5.34	1.94 3.78			6.30 5.41	1.82 2.71	5.35 5.95	2.51			31
MAXIMUM	6.34		7.19		7.18		6.97		6.30		6.24		MAXIMUM
MINIMUM	0.83		0.88		1.01		1.27		1.44		1.40		MINIMUM

MAXIMUM GAGE HEIGHT OF RECORD; 9.2 - 4/6/58

ZERO OF GAGE: 1929 -3.05 USCGS
1964 -3.54 USCGS
1964 TO DATE -3.00 USCGS

TABLE 8-3 (CONTINUED)

DAILY TIDES

E03300 SUISIN RAY AT BENICIA
(OCTOBER 1, 1972, THROUGH MARCH 30, 1973)

DATE	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		DATE
1	-1.84	2.58	-1.72	2.85	-0.23	3.42	1.76	0.55	2.33	0.52	0.77	3.54	1
	0.19	3.32	-1.63	1.99	-1.80	2.18	3.45	-2.40	3.64	-2.72	-2.11		
2	-1.64	2.73	-1.44	2.94	0.27	3.74	2.13	0.70	2.53	0.32	2.66	-0.01	2
	-0.15	3.38	-1.80	2.23	-1.83		3.77	-2.12	3.79	-2.59	3.51	-2.28	
3	-1.50	2.93	-0.82	3.35	2.34	0.47	2.41	0.67	2.87	0.33	2.84	-0.34	3
	-0.46	3.25	-1.67		3.91	-1.47	3.75	-2.25	4.08	-2.15	3.90	-1.93	
4	-1.32	3.17	2.46	-0.31	2.72	0.85	2.30	0.69	3.33	0.24	3.31	-0.71	4
	-0.83	3.05	3.45	-1.91	4.14	-1.86	3.76	-2.44	4.16	-1.97	3.80	-1.83	
5	-1.33	3.12	2.14	-0.36	2.37	0.76	2.33	0.44	3.31	-0.45	3.51	-1.06	5
	-1.31		3.27	-2.23	3.91	-2.05	3.61	-2.46	3.52	-1.93	3.60	-1.62	
6	2.87	-1.10	2.11	0.00	3.10	1.24	2.30	0.25	3.61	-0.29	3.91	-0.90	6
	3.32	-1.42	3.38	-2.15	4.09	-1.84	3.48	-2.32	3.68	-0.70	3.62	-1.20	
7	2.93	-0.58	2.24	0.48	2.71	1.17	2.52	0.14	4.04	-0.61	3.94	-1.60	7
	3.70	-1.18	3.65	-2.06	4.09	-1.83	3.20	-2.34	2.99	-0.83	3.10	-0.61	
8	2.85	-0.17	2.04	0.40	2.59	1.03	2.57	-0.06	3.72	-0.99	4.18	-1.79	8
	3.64	-1.43	3.12	-2.43	3.67	-2.27	3.16	-1.71	2.40	-0.29	2.78	-0.05	
9	2.70	0.13	1.91	0.52	2.26	0.74	3.42	0.87	3.74	-1.14	4.09	-1.92	9
	3.76	-1.34	3.06	-2.22	3.19	-2.36	3.31	-1.35	2.37	1.04	2.36	0.27	
10	2.63	0.44	2.36	0.91	2.31	0.71	3.31	-0.38	4.30	1.00	3.72	-1.94	10
	3.57	-1.44	3.19	-1.69	2.84	-2.27	2.12	-1.37	2.58		2.43	0.95	
11	2.47	0.72	2.50	1.08	2.54	0.54	3.40	-0.61	1.58	4.62	3.76	-1.95	11
	3.42	-1.52	2.84	-1.97	2.59	-2.06	1.90	-0.47	-1.05	2.79	2.15		
12	2.25	1.02	2.18	0.85	2.64	0.12	3.67	-1.26	1.49	4.44	1.09	3.47	12
	3.34	-1.59	2.44		1.95	-2.02	1.56		-1.62	3.09	-2.11	2.23	
13	2.04	1.18	-2.06	2.62	2.73	-0.47	-0.01	3.68	1.46	4.41	0.94	3.29	13
	3.32		1.43	3.06	1.63		-1.89	1.64	-2.33	2.96	-2.72	2.03	
14	-1.39	2.26	-1.03	3.12	-1.47	2.81	0.52	3.85	0.88	4.72	0.01	3.00	14
	1.34	3.08	0.62	2.57	-1.54	1.13	-2.30	2.27	-2.41		-3.12	2.36	
15	-1.10	2.55	-1.30	3.24	-1.10	3.07	1.15	4.68	3.03	0.14	-0.50	3.15	15
	1.52	3.08	0.01	2.69	-1.94	1.30	-1.77	3.39	4.35	-2.64	-2.96	2.60	
16	-1.39	2.48	-0.91	3.66	-0.57	3.52	2.24	5.81	3.15	-0.33	-1.10	3.24	16
	0.81	2.72	-0.67	2.52	-2.32	1.68	-1.31		4.22	-2.55	-2.55		
17	-1.64	2.65	-0.71	3.99	0.00	4.20	3.69	1.23	3.28	-0.74	3.12	-1.44	17
	0.07	2.63	-1.21	2.68	-2.27		5.34	-1.70	3.99	-2.46	3.25	-2.29	
18	-1.59	2.92	-0.51	4.25	2.11	0.18	4.28	2.19	3.37	-0.99	3.23	-1.84	18
	-0.50	2.85	-1.72		4.32	-2.45	5.89	-1.53	3.77	-2.03	3.13	-1.93	
19	-1.29	3.27	2.60	-0.24	2.45	0.33	3.83	0.45	3.57	-1.16	3.42	-1.89	19
	-0.88	2.99	4.37	-2.21	4.51	-2.70	4.97	-2.22	3.31	-1.53	3.34	-0.84	
20	-0.99	3.52	2.59	-0.10	2.42	0.21	3.42	-0.03	3.60	-1.11	3.86	-1.75	20
	-1.29		4.40	-2.60	4.43	-2.87	4.33	-2.12	2.98	-0.84	3.00	-1.12	
21	2.85	-0.99	2.57	0.20	2.50	0.23	3.80	-0.29	3.64	-0.98	3.61	-1.85	21
	3.63	-1.94	4.41	-2.78	4.39	-2.52	3.85	-1.92	2.74	-0.03	2.67	-0.70	
22	2.57	-0.83	2.60	0.38	3.09	0.35	3.58	-0.46	3.57	-1.06	3.28	-2.47	22
	3.88	-2.25	4.46	-2.62	4.31	-2.48	3.00	-1.71	2.14	0.35	2.02	-0.22	
23	2.52	-0.50	2.75	0.43	2.89	-0.10	3.28	-0.75	3.34	-0.93	2.99	-2.32	23
	4.06	-2.39	4.36	-2.48	3.72	-2.36	2.29	-1.10	2.17	1.46	1.80	0.35	
24	2.52	-0.10	2.78	0.40	2.92	-0.52	3.29	-0.53	4.02	-0.17	2.76	-2.10	24
	4.24	-2.30	3.76	-2.59	2.87	-2.54	1.95	-0.29	2.16		1.56	0.65	
25	2.53	0.26	2.59	0.01	2.78	-0.72	3.35	-0.65	1.37	3.28	2.63	-1.76	25
	4.13	-2.22	2.97	-2.65	2.30	-2.17	1.59		-0.79	1.88	1.57	1.00	
26	2.58	0.56	2.62	-0.05	2.88	-0.87	0.02	2.99	1.44	3.32	2.52	-1.59	26
	4.07	-1.96	2.69		1.89	-1.21	-1.09	1.16	-0.80	2.20	1.69		
27	2.63	0.68	-2.21	3.00	3.38	-0.64	0.31	2.77	1.41	3.55	1.09	2.32	27
	3.59		-0.28	2.35	1.97		-1.63	1.14	-0.93	2.72	-1.87	1.53	
28	-2.04	2.58	-1.67	3.16	-0.26	3.29	0.60	2.88	1.54	3.74	0.45	1.78	28
	0.44	3.09	-0.81	1.99	-1.44	1.36	-1.72	1.89	-1.61	2.70	-2.53	1.37	
29	-2.15	2.33	-1.22	3.06	-0.13	3.20	1.37	3.82			-0.23	1.71	29
	-0.21	2.17	-1.40	1.71	-1.87	1.47	-1.57				-2.66	1.69	
30	-2.66	2.15	-0.70	3.21	0.27	3.19	2.50	1.48			-0.77	2.11	30
	-0.86	2.02	-1.73	1.84	-2.26	1.60	3.78	-2.12			-2.55	2.16	
31	-2.14	2.66			0.39	3.27	2.55	1.13			-1.46	2.13	31
	-1.14	2.05			-2.54		3.68	-2.70			-2.59	2.30	
MAXIMUM	4.24		4.46		4.51		5.89		4.72		4.18		MAXIMUM
MINIMUM	-2.66		-2.78		-2.87		-2.70		-2.72		-3.12		MINIMUM

LOCATION: LAT. 38 02 27, LONG. 122 08 04, SW SEC. 6, T2N, R2W
ON CHANNEL SIDE OF WHARF IMMEDIATELY SOUTHEAST OF BENICIA.PERIOD OF RECORD: 1929 TO DATE
INTERMITTENT 1929 TO 1940

TABLE B-3 (CONTINUED)

DAILY TIDES

E03300 SUISIN RAY AT BENICIA
(APRIL 1, 1973, THROUGH SEPTEMBER 30, 1973)

DATE	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		DATE
1	-2.21 -2.87	2.04	-2.52 -1.15	2.17	NR	NR	4.12 2.30	-2.93 -0.31	3.08 2.84	-2.21 -1.05	2.18 3.23	-0.89 -1.50	1
2	2.26 1.89	-3.02 -2.65	3.47 2.02	-3.08 -0.80	NR	NR	3.90 2.33	-2.82 -0.58	2.59 3.05	-1.90 -1.03	1.77 3.00	-0.54	2
3	2.66 1.85	-3.33 -2.29	NR	NR	NR	NR	3.32 2.42	-2.81 -0.79	2.25 3.07	-1.52 -1.20	-1.71 0.01	1.50 2.87	3
4	2.99 1.98	-3.43 -1.54	NR	NR	NR	NR	2.77 2.53	-2.63 -0.96	1.82 3.23	-1.04	-1.68 0.62	1.58 3.16	4
5	3.39 2.16	-3.30 -0.81	NR	NR	NR	NR	2.27 2.82	-2.15	-1.22 -0.39	1.58 3.27	-1.47 0.57	1.72 2.72	5
6	3.63 2.05	-3.21 -0.38	NR	NR	2.63 2.68	-2.70	-0.98 -1.78	1.82 2.86	-1.33 0.29	1.48 3.26	-1.89 0.36	1.57 2.64	6
7	3.55 1.84	-3.31 -0.11	NR	NR	-0.70 -2.40	2.02 2.87	-1.26 -1.23	1.33 2.95	-1.53 0.52	1.58 3.19	-2.28 0.04	1.69 2.57	7
8	3.19 1.81	-3.39 0.19	NR	NR	-1.09 -1.66	1.70 3.14	-1.55 -0.61	1.06 3.03	-1.76 0.63	1.69 3.16	-2.33 -0.16	1.96 2.84	8
9	2.95 2.00	-3.20	NR	NR	-1.38 -0.81	1.51 3.30	-1.86 -0.02	1.22 3.19	-1.96 0.42	1.74 3.20	-2.25 -0.15	2.25 2.95	9
10	0.18 -3.01	2.72 2.29	NR	NR	-1.51 -0.27	1.66 3.41	-1.94 0.37	1.53 3.36	-2.14 0.28	1.87 3.23	-1.93 -0.83	2.30 2.79	10
11	-0.15 -2.84	2.56 2.46	NR	NR	-1.70 0.08	1.84 3.50	-2.01 0.54	1.77 3.49	-2.09 0.19	2.03 3.31	-2.01 -1.22	2.33	11
12	-0.89 -2.63	2.40 2.78	NR	NR	-2.13 0.12	1.83 3.48	-2.04 0.64	2.00 3.57	-2.14 -0.08	2.09 3.21	2.73 2.60	-1.90 -1.45	12
13	-1.28 -2.26	2.49 2.81	NR	NR	-2.30 0.34	1.95 3.47	-2.13 0.75	2.15 3.65	-2.26 -0.45	2.13	2.59 2.79	-1.78 -1.65	13
14	-2.08 -2.12	2.26 2.86	NR	NR	-2.52 0.22	1.82	-2.02 0.41	2.19	3.09 2.29	-2.16 -0.65	2.43 2.99	-1.54 -1.90	14
15	-2.43 -1.87	2.24	NR	NR	3.22 1.84	-2.84 0.34	3.56 2.09	-2.19 0.24	2.93 2.42	-2.07 -0.86	2.21 3.15	-1.20 -1.97	15
16	2.94 2.14	-2.66 -1.55	NR	NR	3.33 1.92	-2.72 0.35	3.47 2.19	-2.19 0.04	2.73 2.61	-1.88 -1.01	2.00 3.30	-0.85 -2.05	16
17	3.09 2.04	-2.83 -0.98	NR	NR	3.30 1.76	-2.73 0.08	3.25 2.22	-2.17 -0.17	2.45 2.85	-1.59 -1.13	1.83 3.24	-0.46 -2.10	17
18	2.85 1.76	-3.23 -0.69	NR	NR	2.85 1.77	-2.97 0.08	2.95 2.28	-2.13 -0.45	2.16 2.98	-1.36 -1.30	1.66 3.21	-0.04	18
19	2.95 1.64	-3.29 -0.42	NR	NR	2.66 1.99	-2.80 0.09	2.56 2.35	-2.04 -0.64	1.77 3.11	-0.93	-2.25 0.32	1.72 3.21	19
20	2.68 1.50	-3.51 -0.07	NR	NR	2.50 2.13	-2.59 -0.02	2.18 2.56	-1.90 -0.82	-1.61 -0.55	1.35 3.15	-2.22 0.07	1.82 3.00	20
21	2.65 1.48	-3.21 0.16	NR	NR	2.29 2.45	-2.28 -0.04	1.72 2.83	-1.61	-1.81 0.07	1.36 3.24	-2.56 -0.28	1.90 2.99	21
22	2.55 1.64	-2.91 0.61	NR	NR	1.89 2.49	-2.08	-1.09 -1.17	1.30 3.07	-2.08 0.17	1.38 3.31	-2.46 -0.52	2.24 3.13	22
23	2.50 1.73	-2.56 0.79	NR	NR	-0.73 -1.71	1.36 2.67	-1.54 -0.61	1.08 3.14	-2.35 0.20	1.54 3.41	-2.36 -1.09	2.38 2.99	23
24	2.24 1.81	-2.35	NR	NR	-1.20 -1.09	1.12 3.01	-1.96 -0.27	1.05 3.26	-2.59 -0.19	1.78 3.55	-2.15 -1.41	2.69 2.83	24
25	0.65 -2.15	2.02 2.06	NR	NR	-1.68 -0.69	1.09 3.42	-2.38 0.08	1.33 3.67	-2.55 -0.46	2.10 3.64	-2.20 -1.95	2.75	25
26	0.27 2.00	1.83 2.32	NR	NR	-2.09 -0.17	1.35 3.70	-2.41 0.44	1.82 4.14	-2.50 -0.63	2.41 3.55	2.66 2.85	-1.98 -2.26	26
27	-0.37 -1.85	1.84 2.71	NR	NR	-2.29 0.23	1.70 4.07	-2.33 0.32	2.17 4.14	-2.36 -1.20	2.45	2.46 3.02	-1.68 -2.26	27
28	-0.82 -1.52	2.10 2.98	NR	NR	-2.38 0.44	2.12 4.29	-2.48 -0.09	2.27 4.07	3.24 2.71	-2.34 -1.39	2.38 3.21	-1.13 -2.17	28
29	-1.41 -1.42	2.07 3.31	NR	NR	-2.62 0.18	2.20 4.26	-2.59 -0.42	2.40	3.08 3.03	2.00 -1.33	2.24 3.25	-0.67 -2.05	29
30	-1.98 -1.25	2.25 3.47	NR	NR	-2.80 -0.07	2.28	3.79 2.50	-2.60 -0.73	2.83 3.20	-1.55 -1.36	2.07 3.27	-0.25 -1.87	30
31			NR	NR			3.51 2.73	-2.39 -0.85	2.54 3.30	-1.14 -1.42			31
MAXIMUM	3.63		NR		NR		4.14		3.64		3.30		MAXIMUM
MINIMUM	-3.51		NR		NR		-2.93		-2.59		-2.56		MINIMUM

NR - NO RECORD

MAXIMUM GAGE HEIGHT OF RECORD : 5.7 - 4/6/58

ZERO OF GAGE : 1929 TO 1940 -2.21 USCGS
1940 TO 1942 -5.00 USCGS
1942 TO DATE 0.00 USCGS

TABLE B-4

CORRECTIONS AND REVISIONS TO PREVIOUSLY PUBLISHED REPORTS OF SURFACE WATER DATA

Location of Error or Revision					Change or Revision	
Report	Page	Mile & Bank	Name	Item	From	To
Bulletin No. 23-62	394		Suisun Bay at Benicia Arsenal	<u>1962</u> Daily Maximum and Minimum Tides for the period 3-1-62 to 3-28-62, inclusive Maximum for March 1962	Published values 16.72	2.00 feet lower than published values 14.72
Bulletin No. 130-63	B-7		Suisun Bay at Benicia Arsenal	<u>1963</u> Maximum Gage Height of Record Date of Maximum Gage Height of Record	6.72 3-5-62	5.7 4-6-58
Bulletin No. 130-64	48		Suisun Bay at Benicia Arsenal	<u>1964</u> Maximum Gage Height of Record Date of Maximum Gage Height of Record	6.72 3-5-62	5.7 4-6-58
Bulletin No. 130-64	52		City of Vallejo from Cache Slough	Total acre-feet Average cubic feet per second Monthly quantities in percent of seasonal	Published values Published values Published values	Values published in Bulletin No. 130-66 Table B-2 Values published in Bulletin No. 130-66 Table B-2 Values published in Bulletin No. 130-66 Table B-2
Bulletin No. 130-67	44		Sacramento River at Collinsville	<u>1967</u> Daily Maximum and Minimum Tides		<u>Notation:</u> In order to machine process the data it was necessary to avoid negative gage heights. Subtract 10.00 feet to obtain gage heights.
Bulletin No. 130-67	45		Suisun Bay at Benicia Arsnnal	Daily Maximum and Minimum Tides		<u>Notation:</u> In order to machine process the data it was necessary to avoid negative gage heights. Subtract 10.00 feet to obtain gage heights.

Appendix C

GROUND WATER MEASUREMENTS

This appendix contains summary and selected information concerning the level of ground water within 32 ground water basins or areas in the Central Coastal Area. Wells are selected to reflect the ground water conditions of the area. These wells are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

Earlier editions of this report contained a tabulation of individual measurements of ground water levels at wells. This type of data collected by the Department will be available at the various district offices of the Department. Please see the introduction at the front of this volume for the addresses of these district offices.

Table C-1 shows the average change in ground water levels for the various basins in the Central Coastal Area from spring 1972 to spring 1973. This table also shows the number of well measurements collected in the various areas. Figure C-2 contains graphical presentations of the average levels of ground water in the spring for the past several years. Figure C-3 is a graphical representation of the fluctuation of ground water level in certain selected wells for the past several years. An attempt has been made to select wells that represent conditions in the basin where the well is located. However, some caution in the use of these data is in order because ground water conditions can vary markedly with relatively small changes in horizontal location.

Two numbering systems are used by the Department to facilitate processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System. The regions used in Bulletin No. 130 are geographic areas defined in Section 13200 of the Water Code. This volume comprises the southern portion of North Coastal Region No. 1, the northern portion of Central Coastal Region No. 3, and all of San Francisco Bay Region No. 2. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:

1 - 18 . 02

Region (North Coastal) _____

Ground Water Basin (Santa Rosa Valley) _____

Subbasin or Subarea (Healdsburg Area) _____

The State Well Numbering System is based on township, range, and section subdivisions of the public land survey. The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below on the left.

17N / 11W - 18 J 04 M

Township _____

Range _____

Section _____

Tract _____

Sequence Number _____

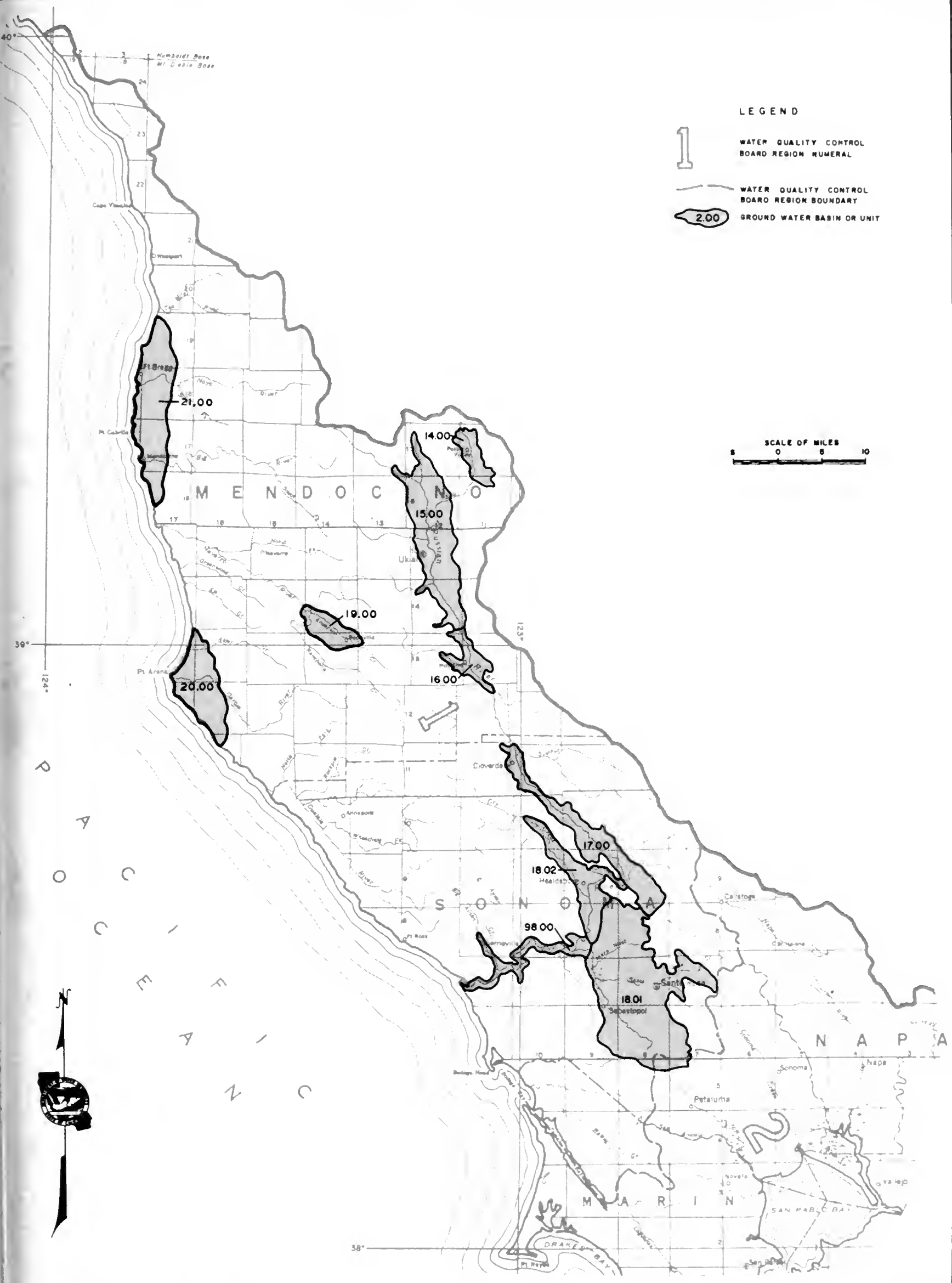
Base and Meridian _____

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

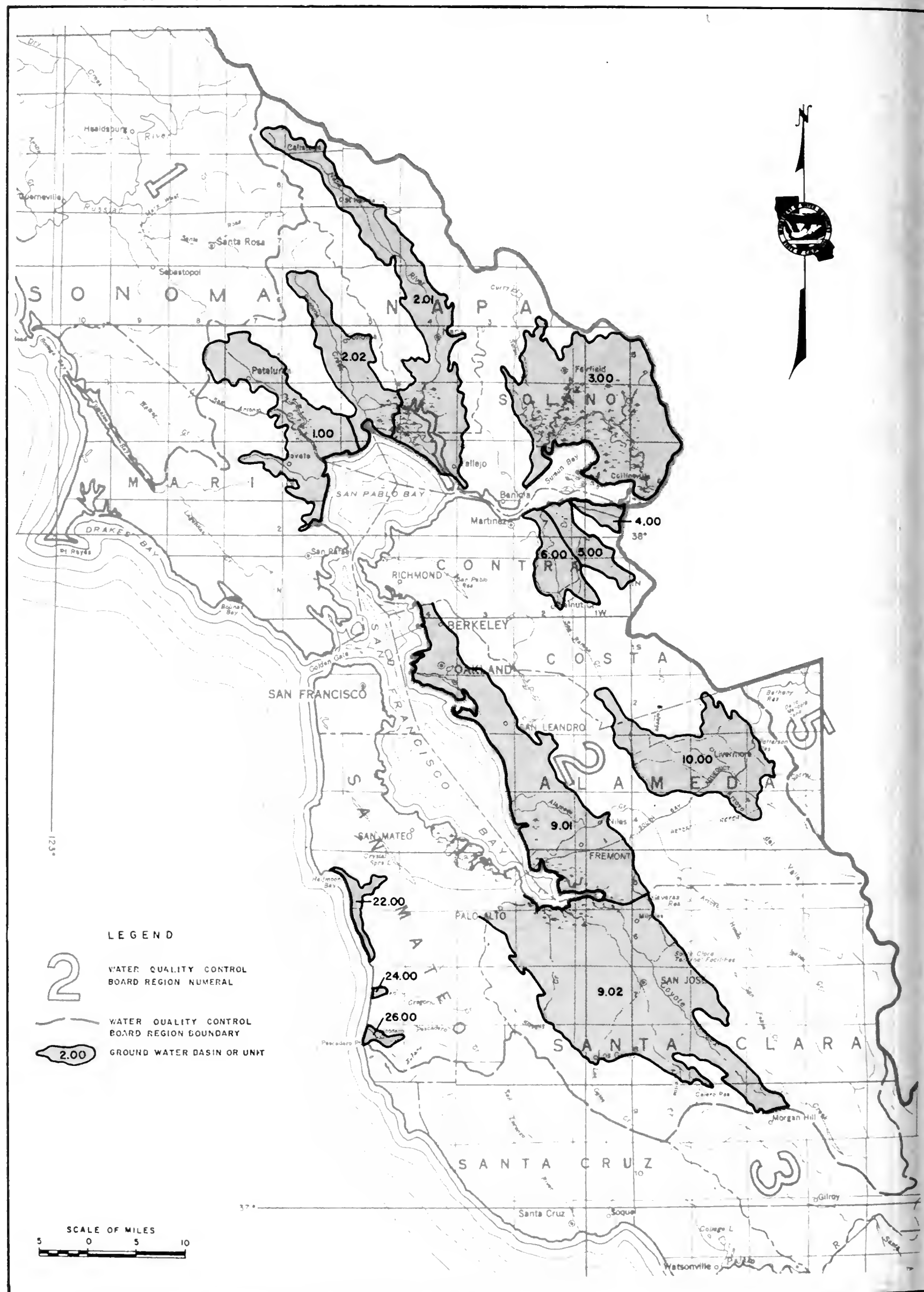
This number identifies and locates the well. In the example, the well is in Township 17 North, Range 11 West, Tract J of Section 18, located in the Mount Diablo Base and Meridian. A section is divided into 40-acre tracts as shown above on the right. Sequence numbers in a tract are generally assigned in chronological order. The example designates the fourth well to be assigned a number in Tract J.

INDEX TO GROUND WATER MEASUREMENT DATA
IN THE CENTRAL COASTAL AREA

<u>Number</u>	<u>Basin</u>	<u>Page</u>
NORTH COASTAL REGION 1-00.00 (Figure C-1, Sheet 1)		
1-14.00	Potter Valley	24, 25
1-15.00	Ukiah Valley	24, 25, 26
1-16.00	Sanel Valley	24, 25, 26
1-17.00	Alexander Valley	24, 25, 26
1-18.00	Santa Rosa Valley	
1-18.01	Santa Rosa Area	24, 25, 26
1-18.02	Healdsburg Area	24, 25, 26
1-19.00	Anderson Valley	
1-20.00	Point Arena	
1-21.00	Fort Bragg Terrace	
1-98.00	Lower Russian River Valley	24
SAN FRANCISCO BAY REGION 2-00.00 (Figure C-1, Sheet 2)		
2-01.00	Petaluma Valley	24, 26, 30
2-02.00	Napa-Sonoma Valley	
2-02.01	Napa Valley	24, 26, 30
2-02.02	Sonoma Valley	24, 26, 30
2-03.00	Suisun-Fairfield Valley	24, 26, 30
2-04.00	Pittsburg Plain	24, 26
2-05.00	Clayton Valley	
2-06.00	Ygnacio Valley	24, 27, 30
2-09.00	Santa Clara Valley	
2-09.01	East Bay Area	24, 27, 30
2-09.02	South Bay Area	24, 27, 31, 32
2-10.00	Livermore Valley	24, 27, 32
2-22.00	Half Moon Bay Terrace	24, 27, 33
2-24.00	San Gregorio Valley	24, 28, 33
2-26.00	Pescadero Valley	24, 28, 33
CENTRAL COASTAL REGION 3-00.00 (Figure C-1, Sheet 3)		
3-01.00	Soquel Valley	24, 28, 33
3-02.00	Pajaro Valley	24
3-03.00	Gilroy-Hollister Valley	
3-03.01	South Santa Clara County	24, 28, 34
3-03.02	San Benito County	24, 28, 33
3-04.00	Salinas Valley	
3-04.01	Pressure Area	24, 34
3-04.02	East Side Area	24
3-04.03	Forebay Area	24
3-04.04	Arroyo Seco Cone	24
3-04.05	Upper Valley Area	24, 34
3-04.06	Paso Robles Basin	24
3-04.08	Seaside Area	24
3-04.09	Langley Area	24
3-04.10	Corral De Tierra Area	24
3-07.00	Carmel Valley	24
3-26.00	West Santa Cruz Terrace	24



GROUND WATER BASINS IN THE CENTRAL COASTAL AREA



GROUND WATER BASINS IN THE CENTRAL COASTAL AREA

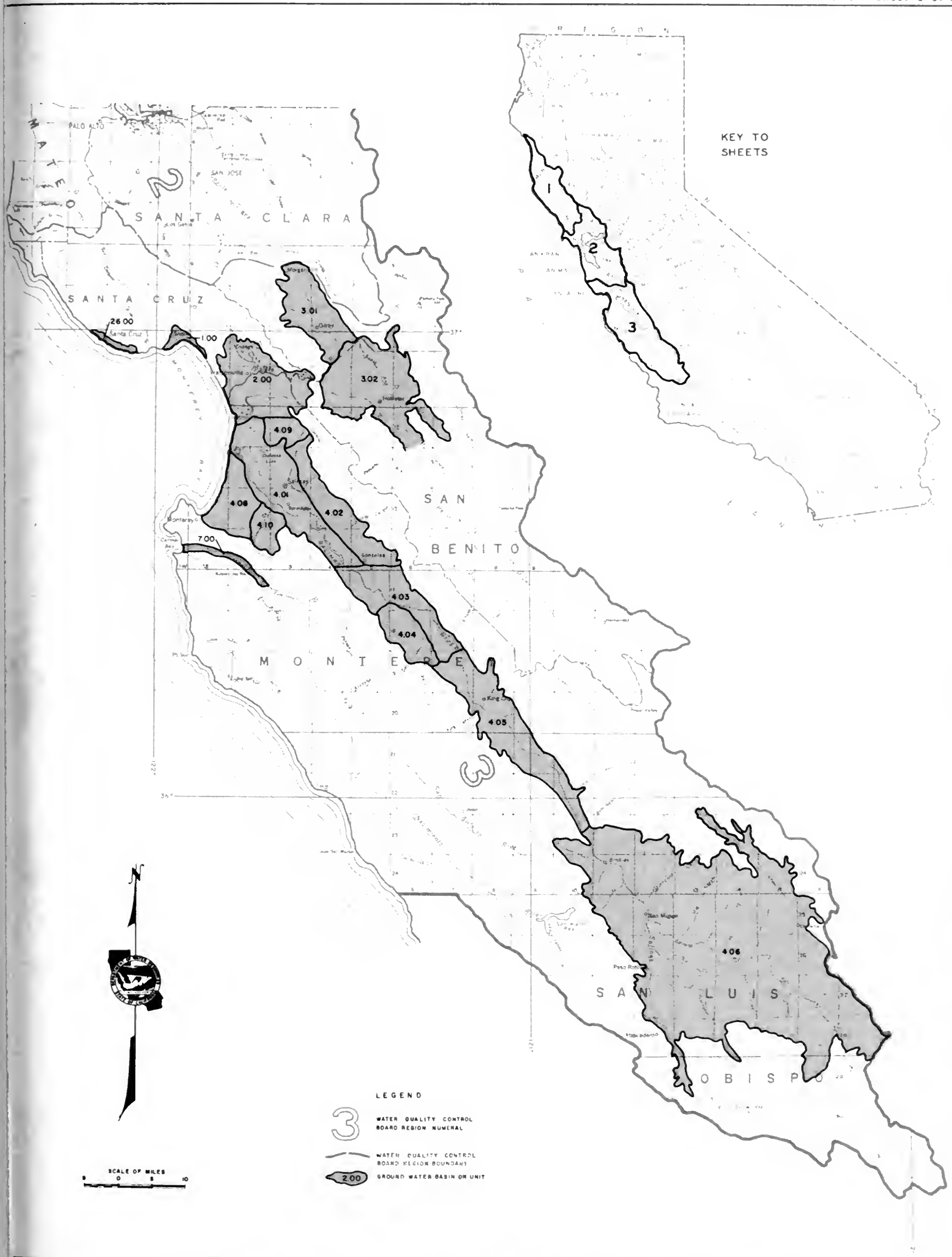
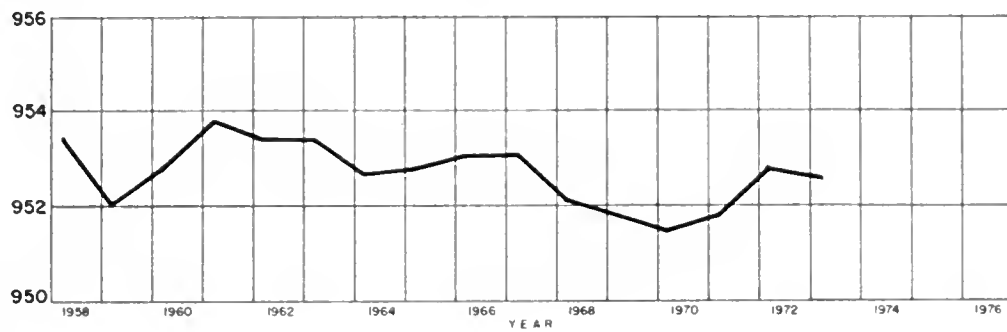


TABLE C-1
AVERAGE CHANGE OF GROUND WATER LEVELS
AND SUMMARY OF WELL MEASUREMENTS REPORTED

Ground Water Basin or Area		Average Change Spring 1972 to Spring 1973 in Feet	Measuring Agency	Number of Wells Reported		
Name	Number			Monthly 1972-73	Fall 1972	Spring 1973
NORTH COASTAL REGION						
Potter Valley	1-14.00	-0.3	Department of Water Resources		2	2
Ukiah Valley	1-15.00	0.0	Department of Water Resources		2	2
Sanel Valley	1-16.00	-1.4	Department of Water Resources		3	3
Alexander Valley	1-17.00	-0.1	Department of Water Resources		6	6
Santa Rosa Valley	1-18.00					
Santa Rosa Area	1-18.01	+2.0	Department of Water Resources		12	13
Healdsburg Area	1-18.02	-0.5	U. S. Geological Survey		9	9
Lower Russian River Valley	1-98.00		Department of Water Resources			2
SAN FRANCISCO BAY REGION						
Petaluma Valley	2-01.00	+3.0	Department of Water Resources		6	6
Napa-Sonoma Valley	2-02.00					
Napa Valley	2-02.01	+1.3	Napa County			98
			Department of Water Resources		6	6
Sonoma Valley	2-02.02	+3.2	Department of Water Resources		5	5
Suisun-Fairfield Valley	2-03.00	+2.5	Solano County		14	14
			Department of Water Resources	8		
Pittsburg Plain	2-04.00	+1.5	Department of Water Resources		6	5
Ygnacio Valley	2-06.00	+3.3	Department of Water Resources		5	5
Santa Clara Valley	2-09.00					
East Bay Area	2-09.01	+11.0	Alameda County FC & WCD	3	45	45
			Alameda County Water District		491	491
South Bay Area	2-09.02	+5.7	Santa Clara Valley wD	235		
Livermore Valley	2-10.00	+4.3	Alameda County FC & WCD	8	142	142
Half Moon Bay Terrace	2-22.00	+4.9	Department of Water Resources		8	8
San Gregorio Valley	2-24.00	+2.0	Department of Water Resources		5	5
Pescadero Valley	2-26.00	+5.2	Department of Water Resources		7	7
CENTRAL COASTAL REGION						
Soquel Valley	3-01.00	+2.0	Department of Water Resources		3	3
Pajaro Valley	3-02.00	-2.6*	Monterey County FC & WCD		39	
			Department of Water Resources		7	
			Santa Cruz County		49	
Gilroy-Hollister Valley	3-03.00	+0.7				
South Santa Clara County	3-03.01	+4.4	Santa Clara Valley WD		6	
			Department of Water Resources		17	
San Benito County	3-03.02	-0.6	San Benito County		68	
			Department of Water Resources		7	
Salinas Valley	3-04.00	+0.9				
Pressure Area	3-04.01	+3.4*	Monterey County FC & WCD		135	
East Side Area	3-04.02	-3.1*	Monterey County FC & WCD		67	
Forebay Area	3-04.03	-0.6*	Monterey County FC & WCD		42	
Arroyo Seco Cone	3-04.04	-2.9*	Monterey County FC & WCD		19	
Upper Valley Area	3-04.05	+1.7*	Monterey County FC & WCD		43	
Paso Robles Basin	3-04.06	+10.0	San Luis Obispo FC & WCD			36
Seaside Area	3-04.08	0.0*	Monterey County FC & WCD		12	
Langley Area	3-04.09	-5.9*	Monterey County FC & WCD		16	
Corral de Tierra Area	3-04.10	-4.2*	Monterey County FC & WCD		25	
Carmel Valley	3-07.00	+3.6	Monterey County FC & WCD		28	
West Santa Cruz Terrace	3-26.00		Department of Water Resources		3	2
TOTAL				254	1360	915

*Average change determined from water level measurements made during fall of 1971 and fall of 1972.

ELEVATION IN FEET - U. S. C. & G. S. DATUM

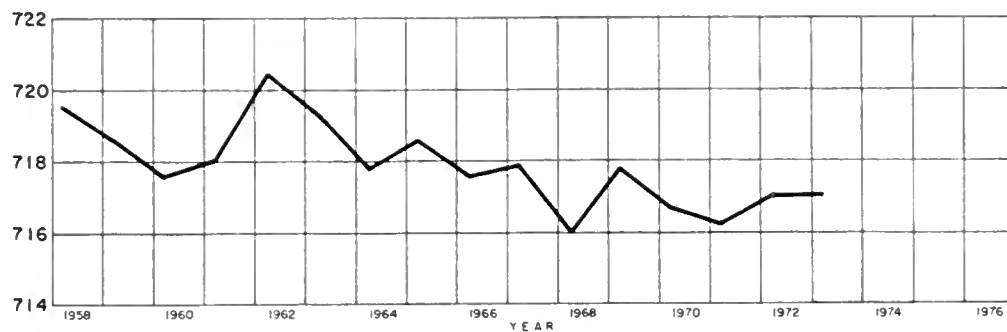


POTTER VALLEY

1 - 14.00

AVERAGE GROUND SURFACE

ELEVATION 960'

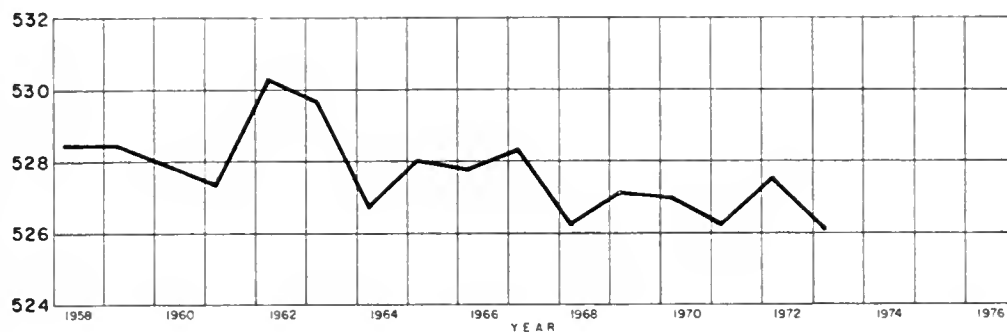


UKIAH VALLEY

1 - 15.00

AVERAGE GROUND SURFACE

ELEVATION 725'

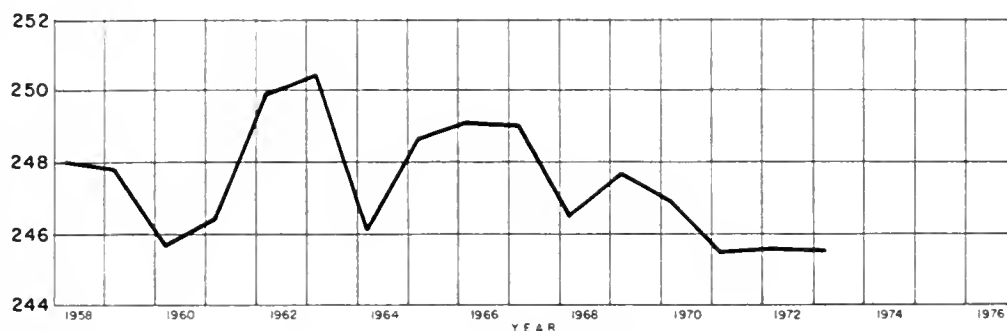


SANEL VALLEY

1 - 16.00

AVERAGE GROUND SURFACE

ELEVATION 535'

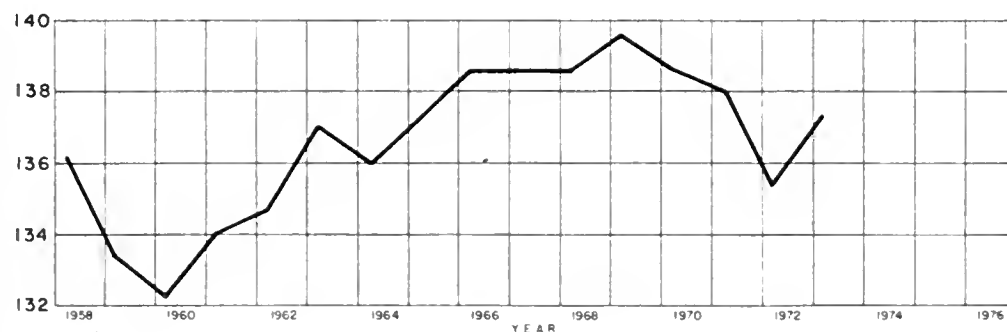


ALEXANDER VALLEY

1 - 17.00

AVERAGE GROUND SURFACE

ELEVATION 255'

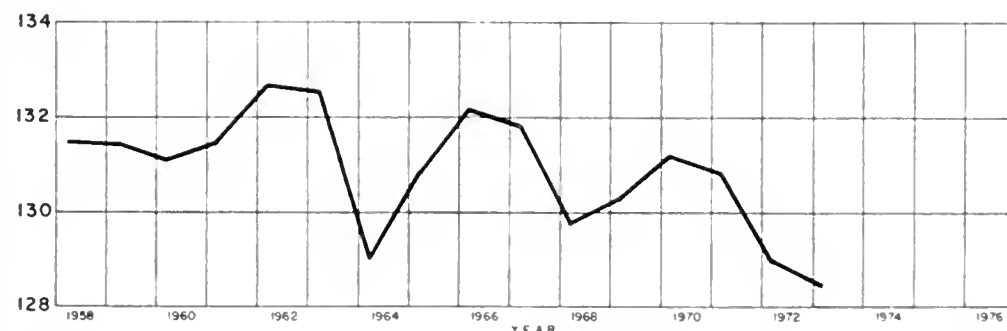


SANTA ROSA AREA

1 - 18.01

AVERAGE GROUND SURFACE

ELEVATION 150'



HEALDSBURG AREA

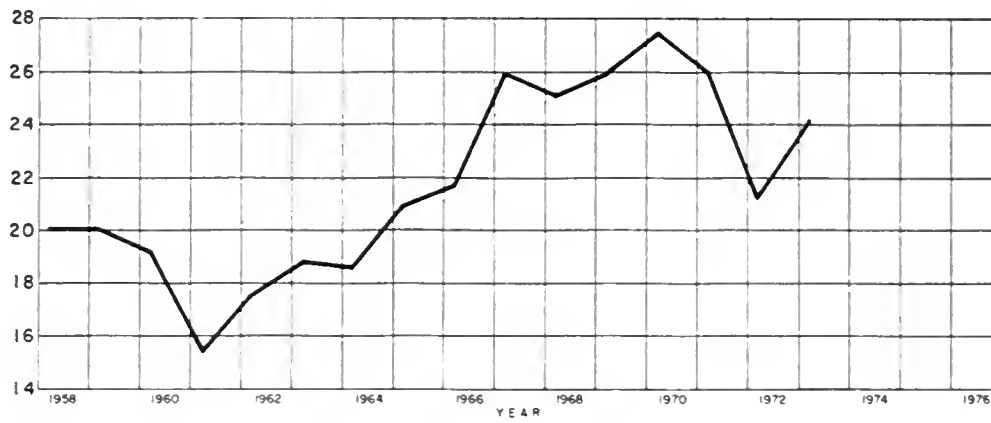
1 - 18.02

AVERAGE GROUND SURFACE

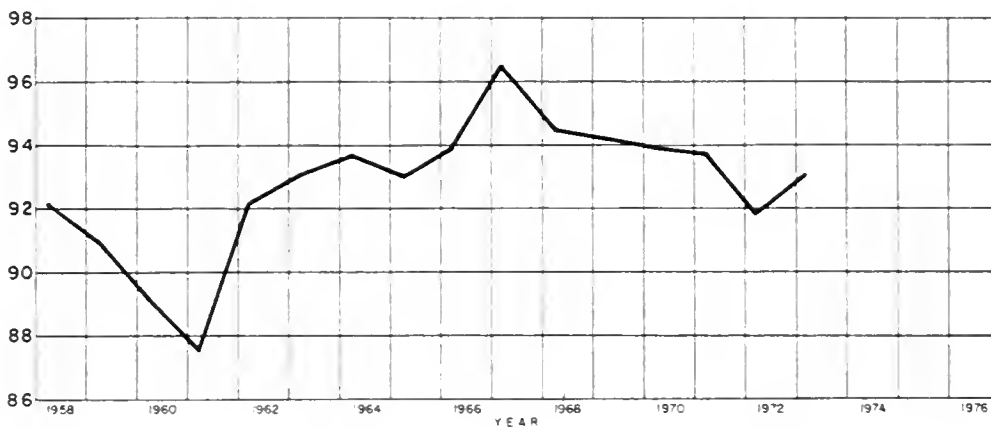
ELEVATION 145'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS

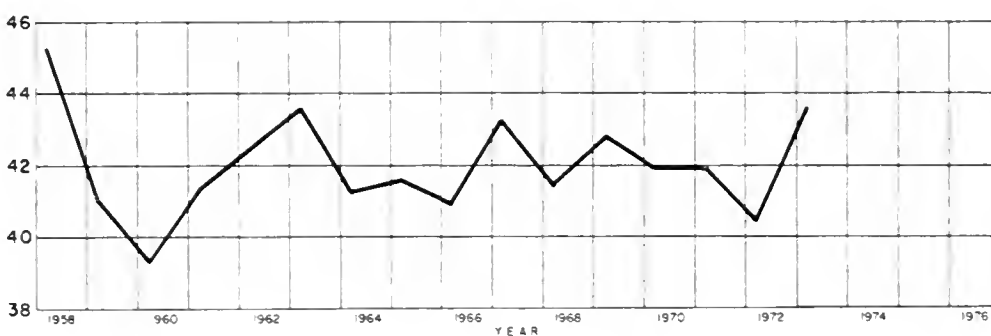
ELEVATION IN FEET - U.S.C. & G.S. DATUM



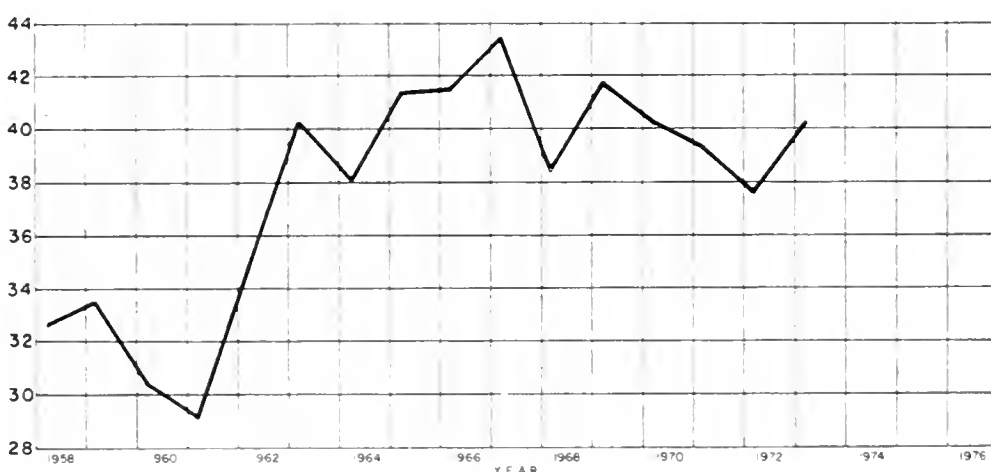
PETALUMA VALLEY
2-01.00
AVERAGE GROUND SURFACE
ELEVATION 42'



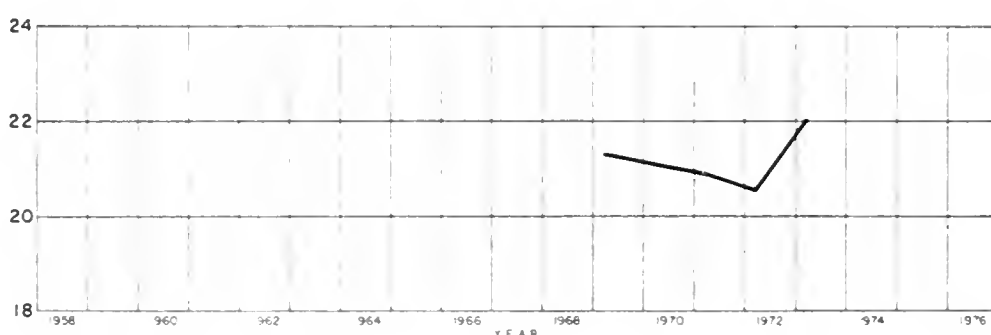
NAPA VALLEY
2-02.01
AVERAGE GROUND SURFACE
ELEVATION 105'



SONOMA VALLEY
2-02.02
AVERAGE GROUND SURFACE
ELEVATION 60'



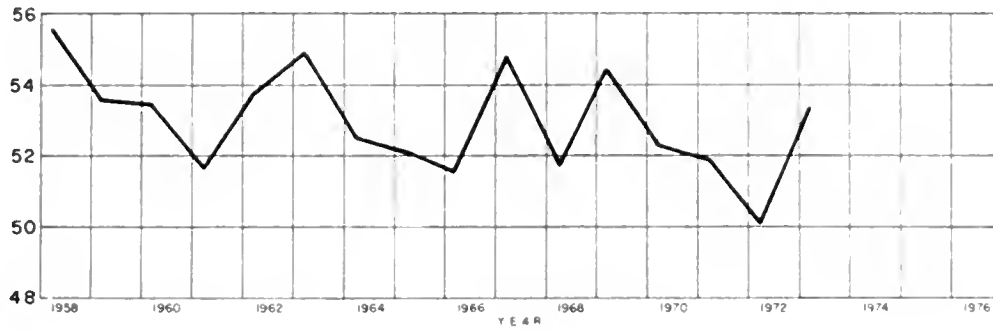
SUISUN-FAIRFIELD VALLEY
2-03.00
AVERAGE GROUND SURFACE
ELEVATION 47'



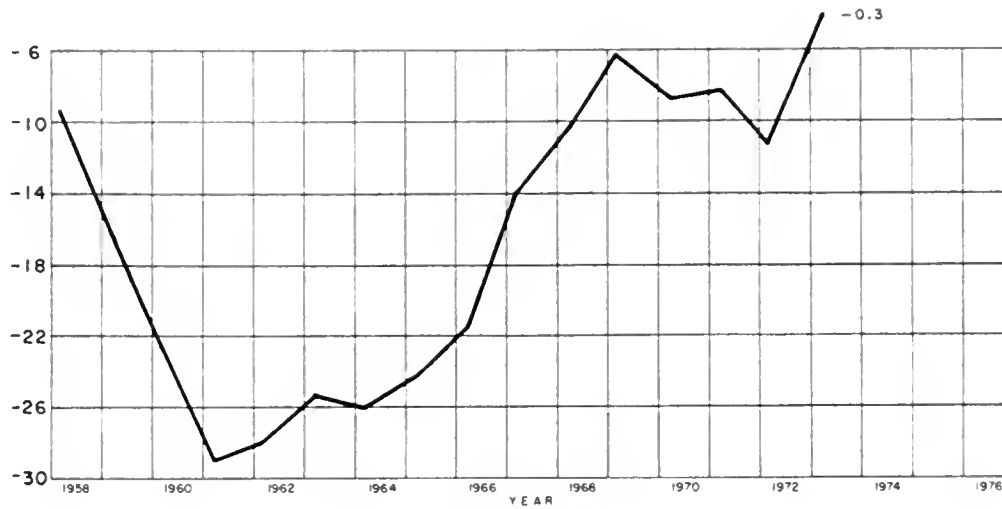
PITTSBURG PLAIN
2-04.00
AVERAGE GROUND SURFACE
ELEVATION 55'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS

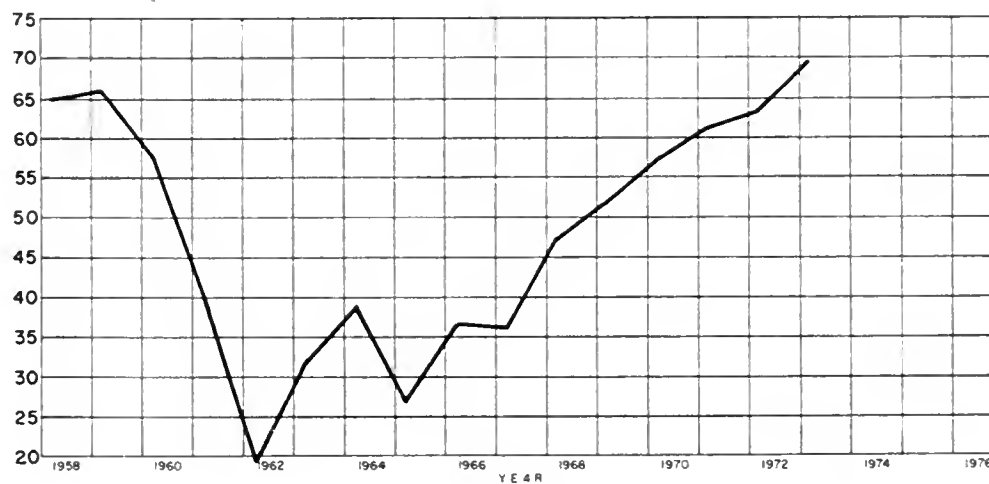
ELEVATION IN FEET - U.S.C. & G.S. DATUM



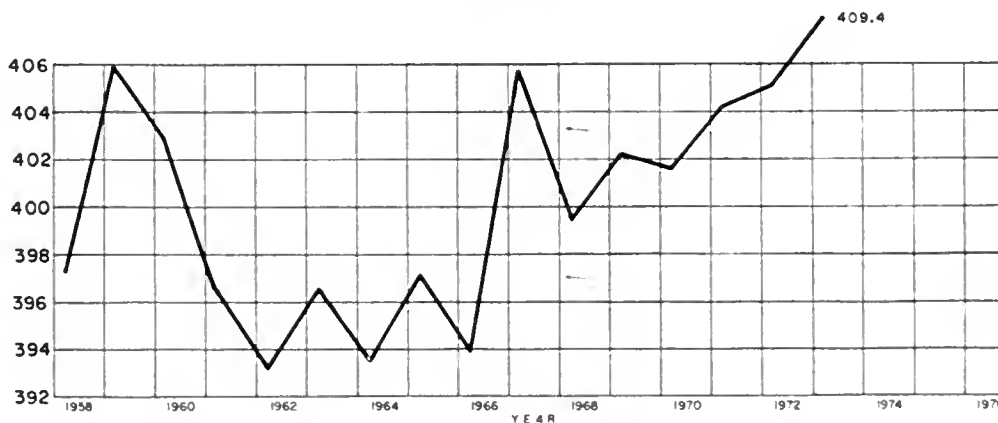
YGNACIO VALLEY
2 - 06.00
AVERAGE GROUND SURFACE
ELEVATION 70'



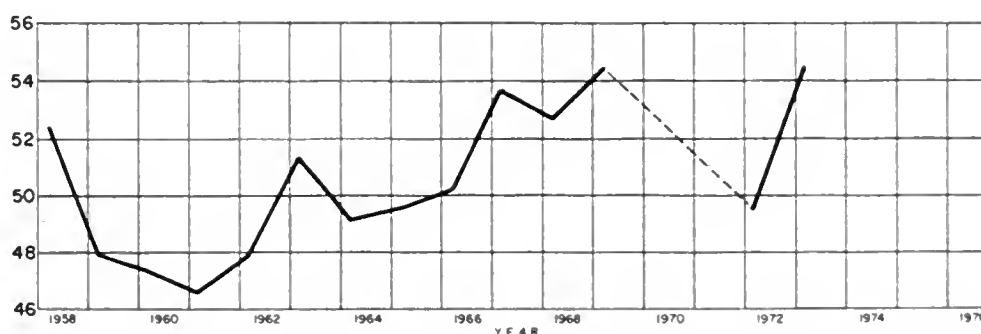
SANTA CLARA VALLEY
EAST BAY AREA
2 - 09.01
AVERAGE GROUND SURFACE
ELEVATION 34'



SANTA CLARA VALLEY
SOUTH BAY AREA
2 - 09.02
AVERAGE GROUND SURFACE
ELEVATION 155'



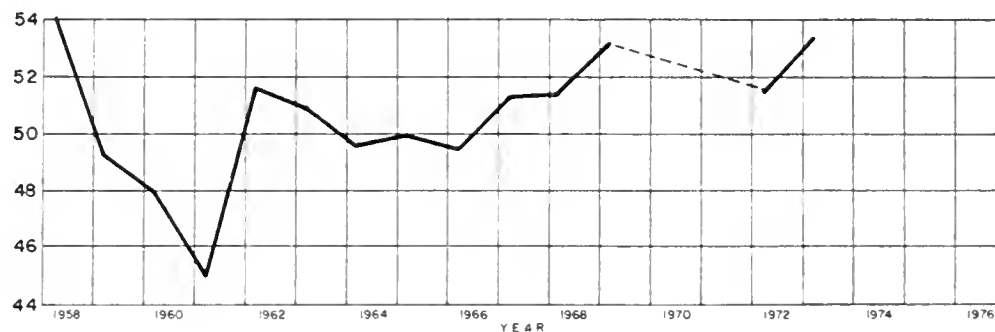
LIVERMORE VALLEY
2 - 10.00
AVERAGE GROUND SURFACE
ELEVATION 460'



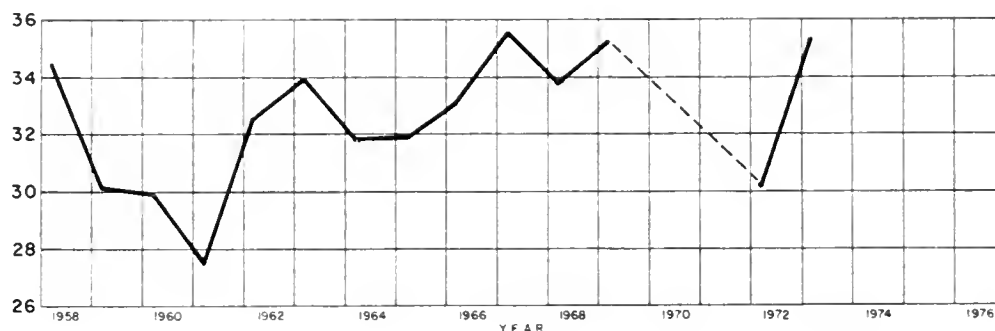
HALF MOON BAY TERRACE
2 - 22.00
AVERAGE GROUND SURFACE
ELEVATION 70'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS

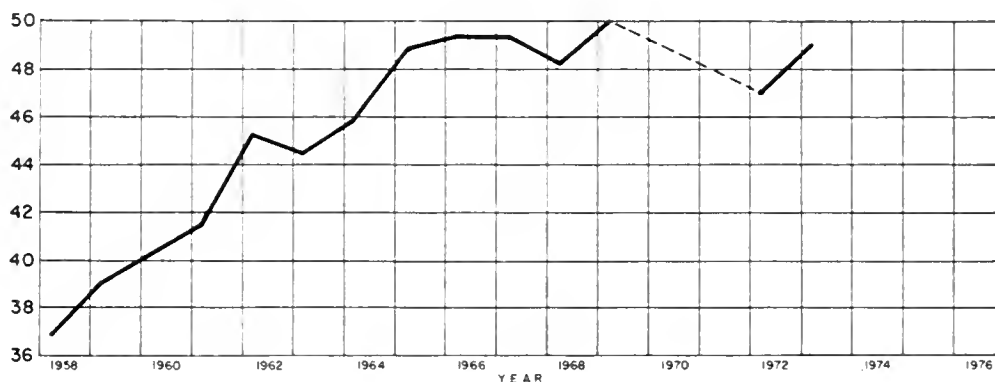
ELEVATION IN FEET - U.S.C. & G.S. DATUM



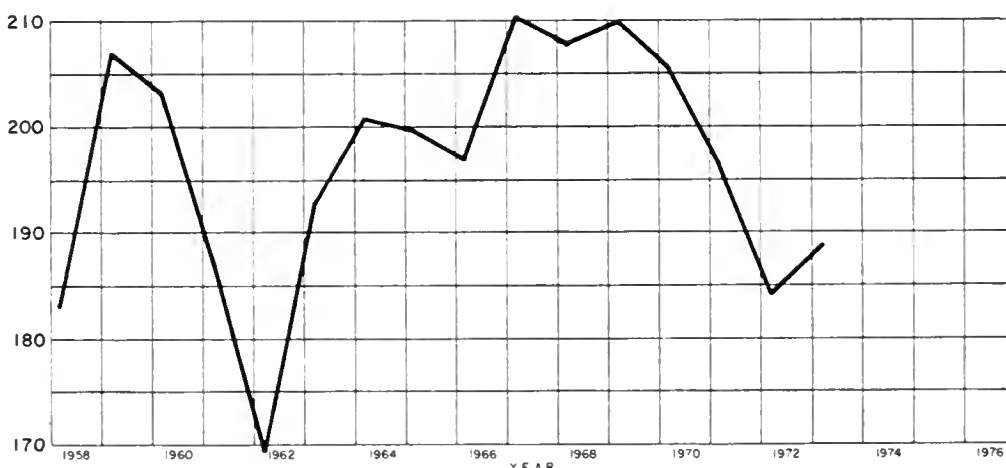
SAN GREGORIO VALLEY
2 - 24.00
AVERAGE GROUND SURFACE
ELEVATION 60'



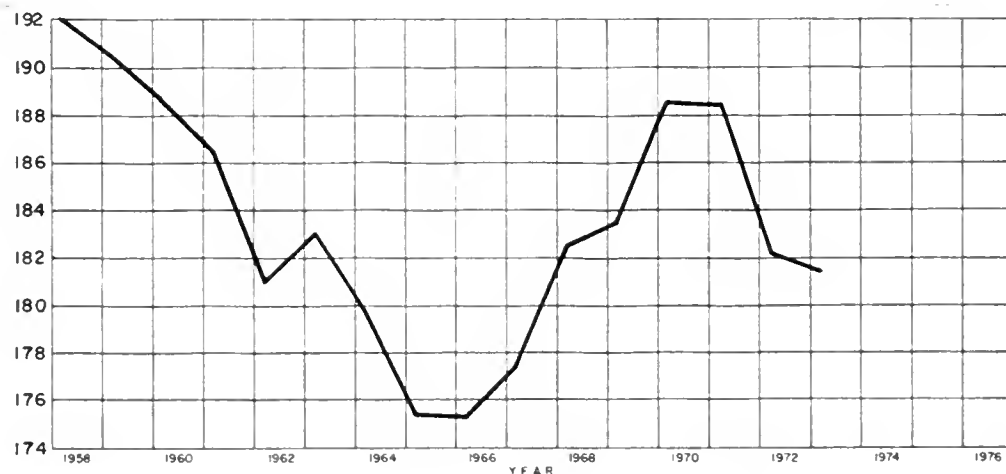
PESCADERO VALLEY
2 - 26.00
AVERAGE GROUND SURFACE
ELEVATION 40'



SOQUEL VALLEY
3 - 01.00
AVERAGE GROUND SURFACE
ELEVATION 110'



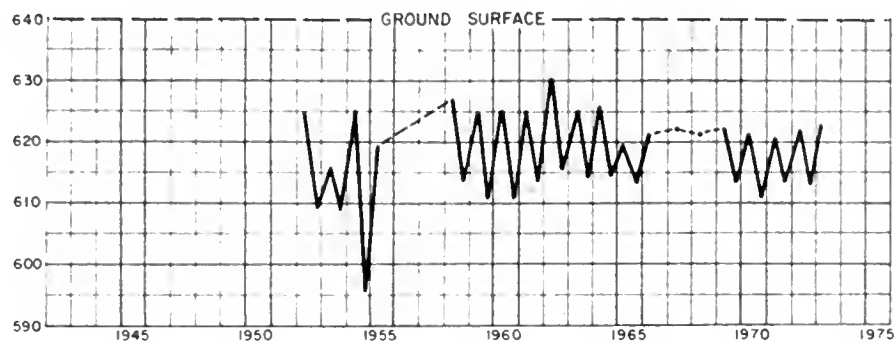
SOUTH SANTA CLARA COUNTY
3 - 03.01
AVERAGE GROUND SURFACE
ELEVATION 240'



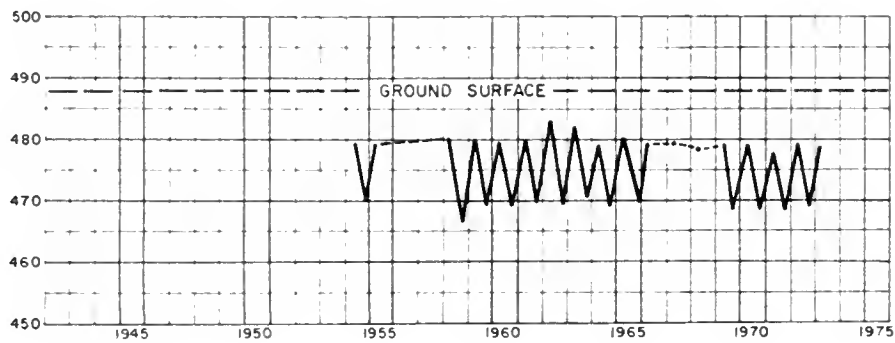
SAN BENITO COUNTY
3 - 03.02
AVERAGE GROUND SURFACE
ELEVATION 260'

FLUCTUATION OF AVERAGE GROUND WATER LEVEL IN SELECTED AREAS

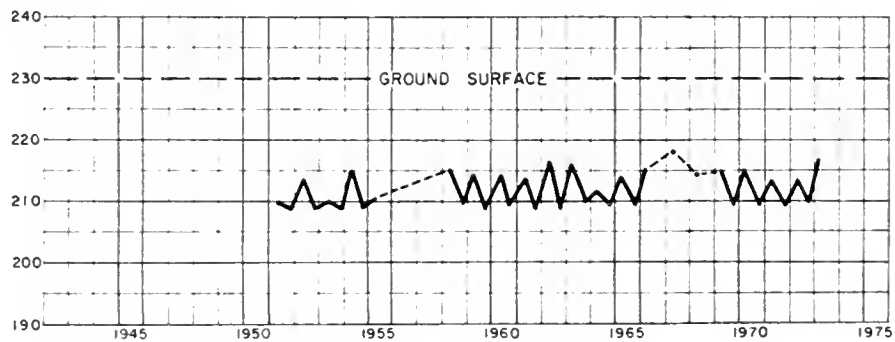
ELEVATION IN FEET - U. S. G. S. DATUM



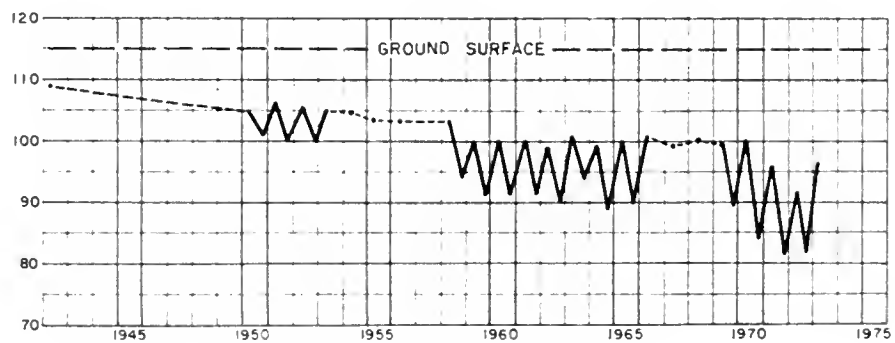
UKIAH VALLEY (1-15.00)
WELL NUMBER 15N/12W-8L1
GROUND SURFACE ELEVATION 640'



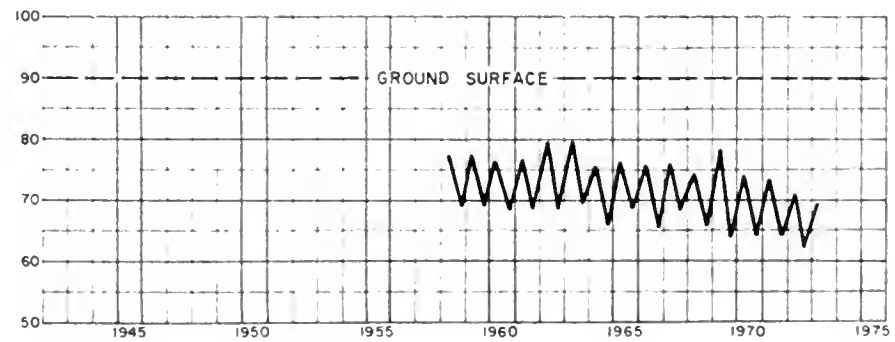
SANEL VALLEY (1-16.00)
WELL NUMBER 13N/11W-19PI
GROUND SURFACE ELEVATION 488'



ALEXANDER VALLEY (1-17.00)
WELL NUMBER 10N/9W-188I
GROUND SURFACE ELEVATION 230'



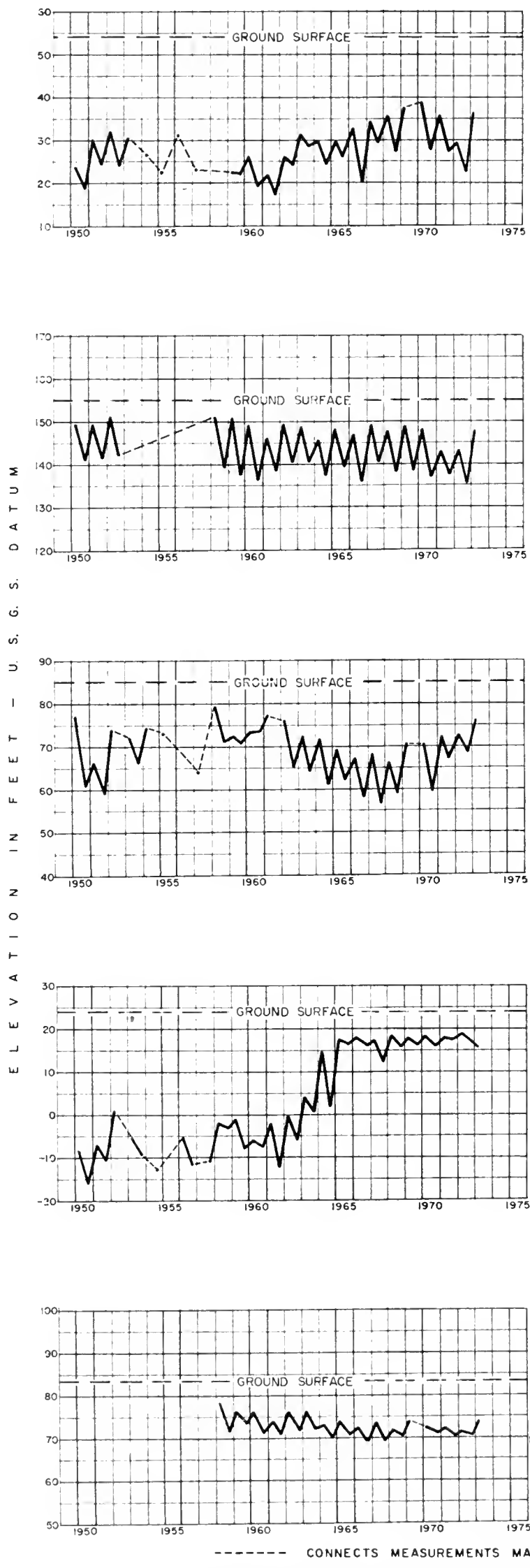
SANTA ROSA AREA (1-18.01)
WELL NUMBER 6N/8W-13RI
GROUND SURFACE ELEVATION 115'



HEALDSBURG AREA (1-18.02)
WELL NUMBER 9N/9W-28NI
GROUND SURFACE ELEVATION 90'

----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS



PETALUMA VALLEY (2-01.00)
WELL NUMBER 5N/7W-26R1
GROUND SURFACE ELEVATION 54'

NAPA VALLEY (2-02.01)
WELL NUMBER 7N/5W-902
GROUND SURFACE ELEVATION 155'

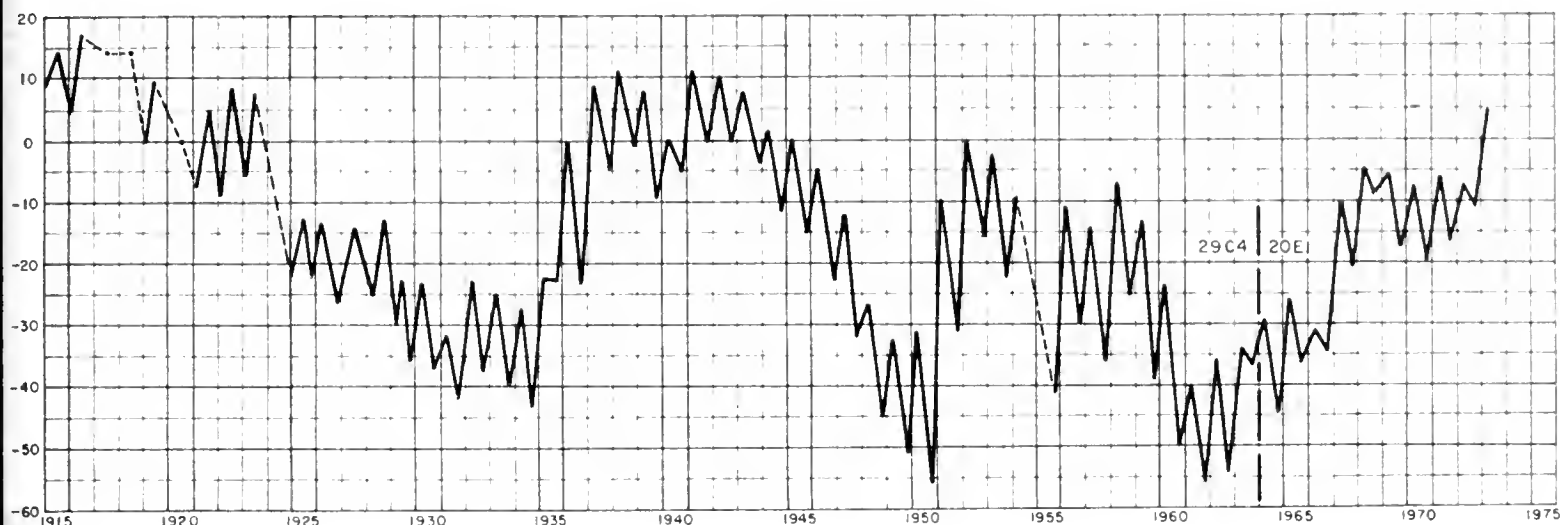
SONOMA VALLEY (2-02.02)
WELL NUMBER 5N/5W-17C1
GROUND SURFACE ELEVATION 85'

SUISUN - FAIRFIELD VALLEY (2-03.00)
WELL NUMBER 5N/2W-27J2
GROUND SURFACE ELEVATION 24'

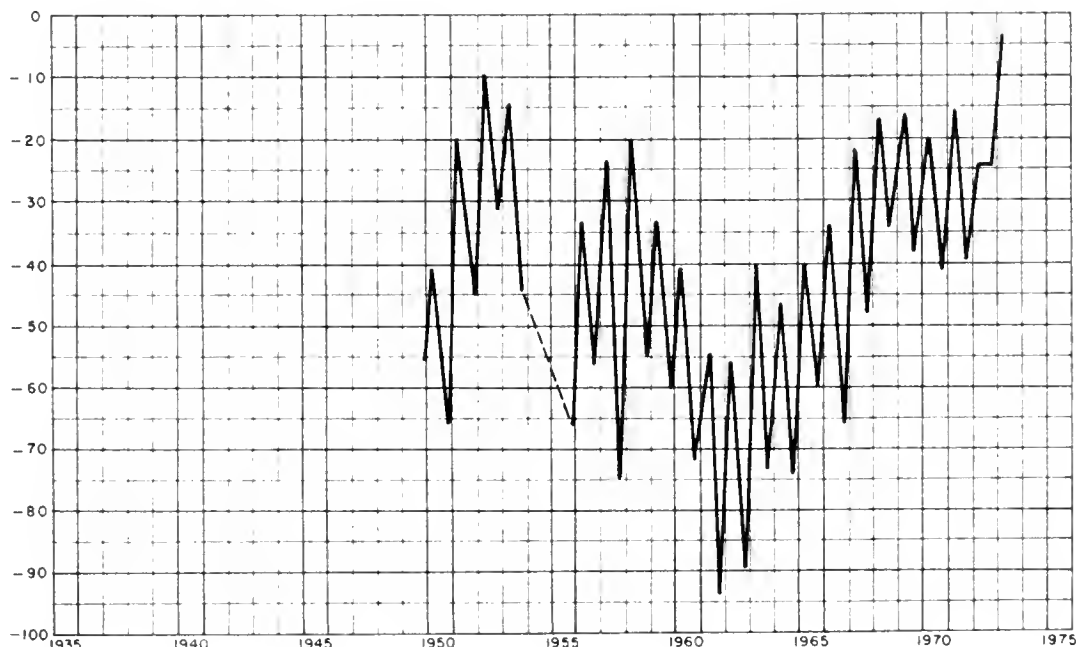
YGNACIO VALLEY (2-06.00)
WELL NUMBER 1N/1W-7K1
GROUND SURFACE ELEVATION 83'

FLUCTUATION OF WATER LEVEL IN WELLS

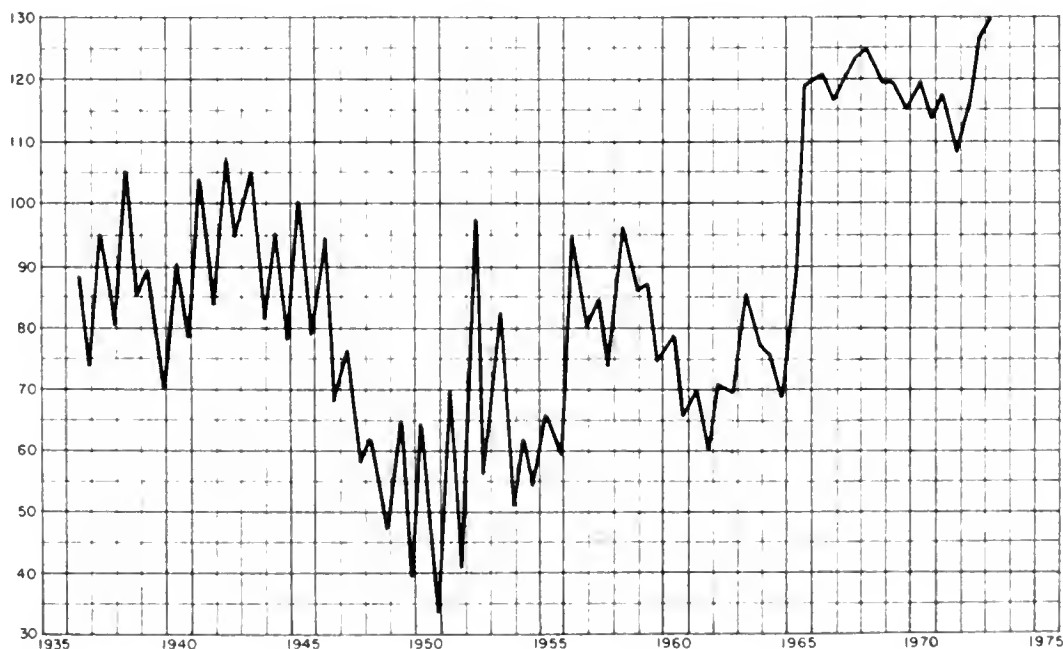
SANTA CLARA VALLEY
EAST BAY AREA - UPPER AQUIFER (2-09.01)
WELL NUMBERS 4S/IW-29C4, 20E1
GROUND SURFACE ELEVATION 55'



ELEVATION IN FEET - U.S.G.S. DATUM



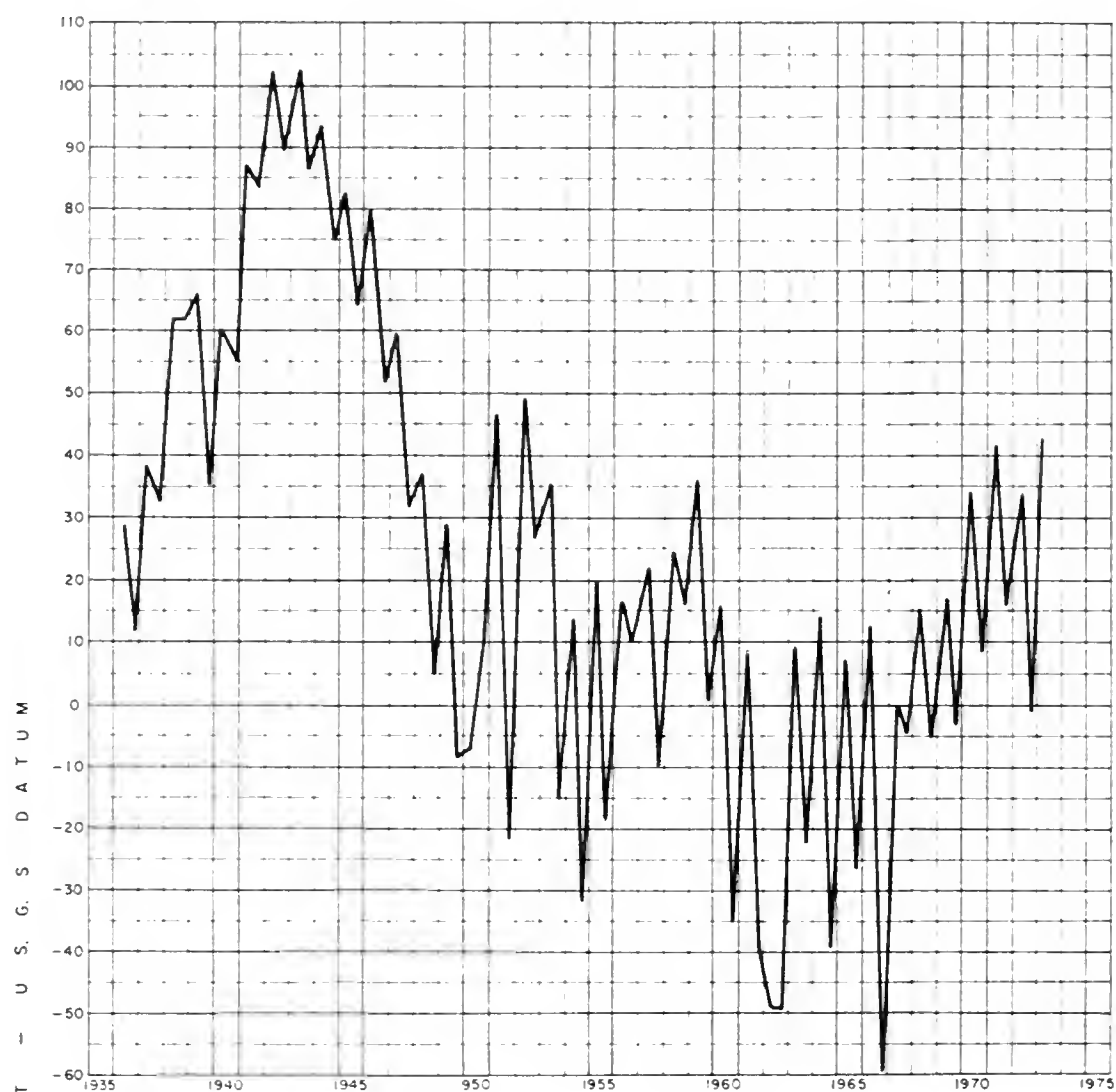
SANTA CLARA VALLEY
EAST BAY AREA
LOWER AQUIFER (2-09.01)
WELL NUMBER 5S/IW-5F1
GROUND SURFACE ELEVATION 36'



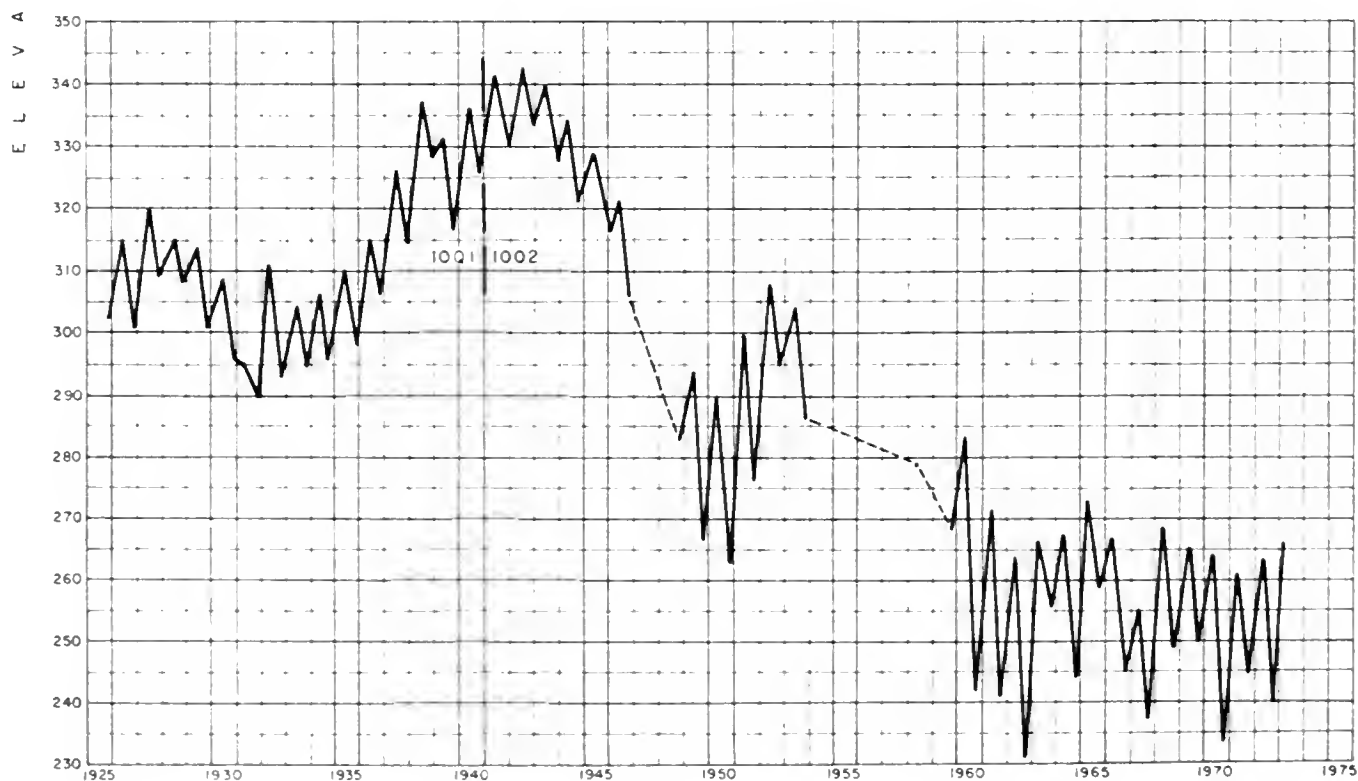
SANTA CLARA VALLEY
SOUTH BAY AREA (2-09.02)
WELL NUMBER 6S/IE-23P2
GROUND SURFACE ELEVATION 240'

----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS



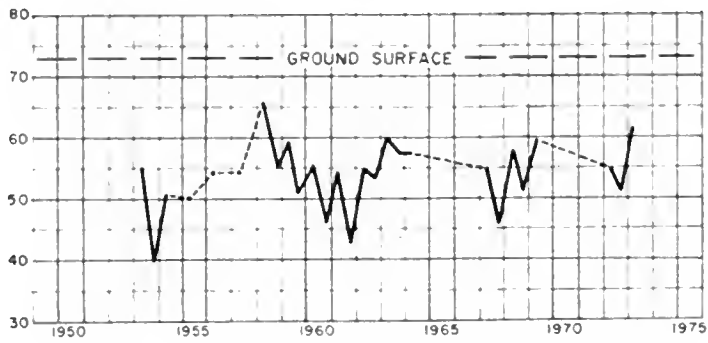
LIVERMORE VALLEY (2-10.00)
WELL NUMBERS 3S/IE-10Q1, 10Q2
GROUND SURFACE ELEVATION 369'



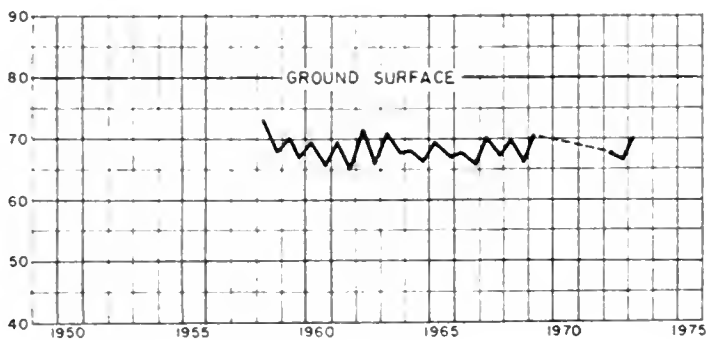
----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS

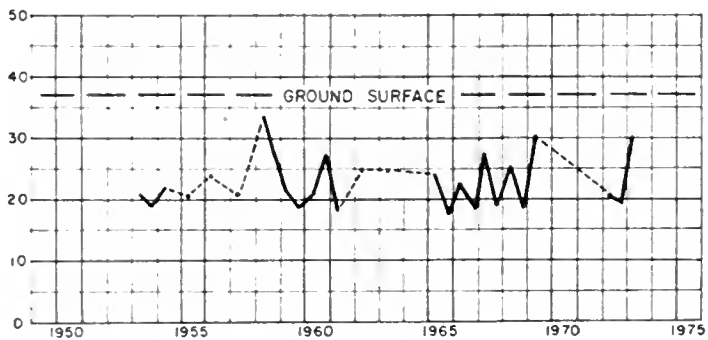
ELEVATION IN FEET - U.S.G.S. DATUM



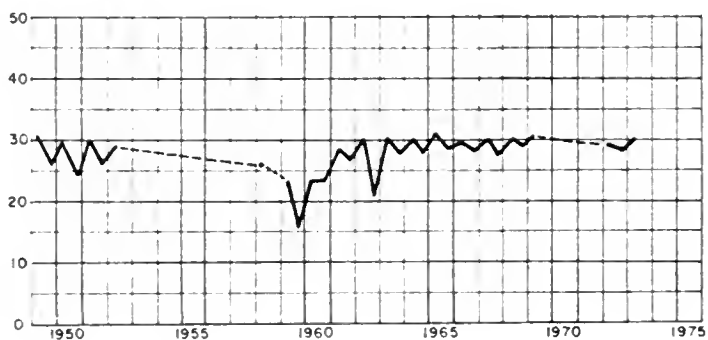
HALF MOON BAY TERRACE (2-22.00)
WELL NUMBER 5S/5W-20L1
GROUND SURFACE ELEVATION 73'



SAN GREGORIO VALLEY (2-24.00)
WELL NUMBER 7S/5W-14C1
GROUND SURFACE ELEVATION 80'

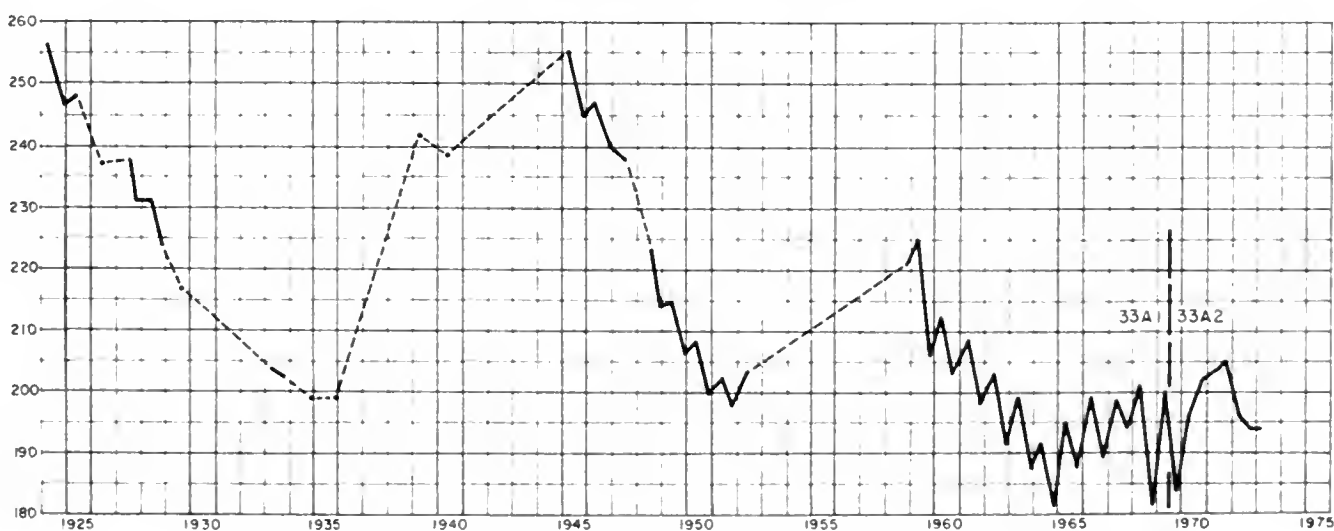


PESCADERO VALLEY (2-26.00)
WELL NUMBER 8S/5W-10K1
GROUND SURFACE ELEVATION 37'



SOQUEL VALLEY (3-01.00)
WELL NUMBER 11S/1W-10C1
GROUND SURFACE ELEVATION 90'

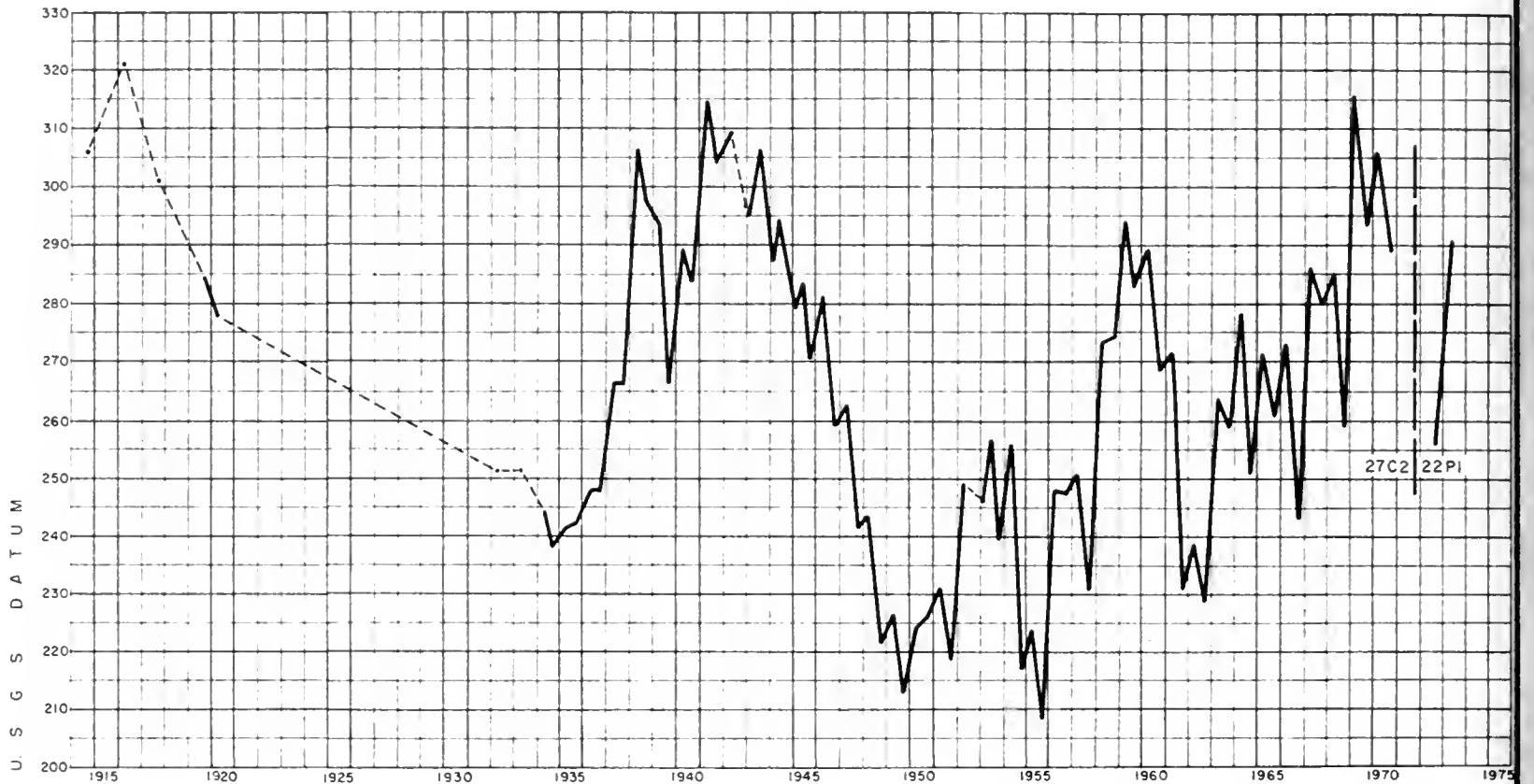
GILROY - HOLLISTER VALLEY
SAN BENITO COUNTY (3-03.02)
WELL NUMBERS 12S/5E-33A1, 33A2
GROUND SURFACE ELEVATION 280'



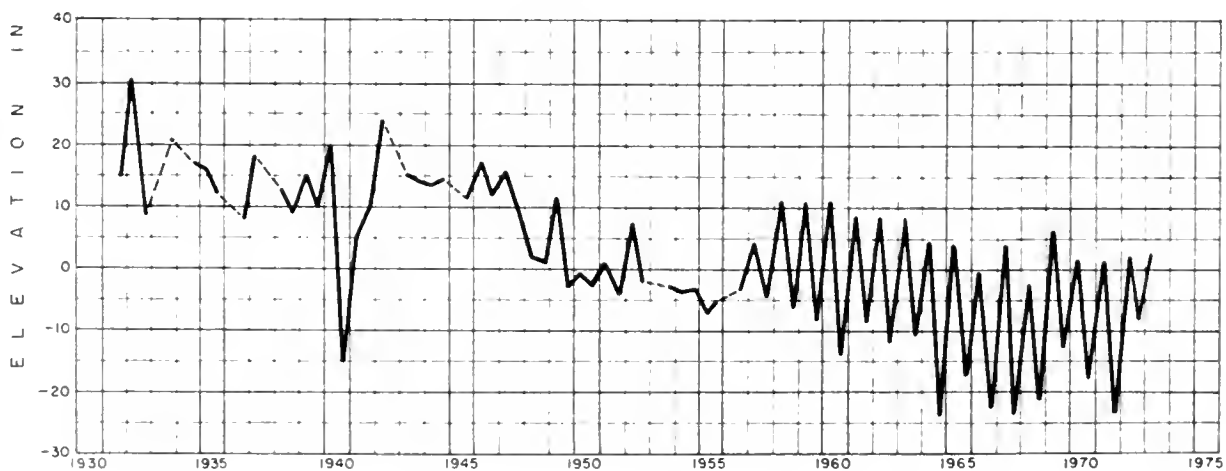
----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS

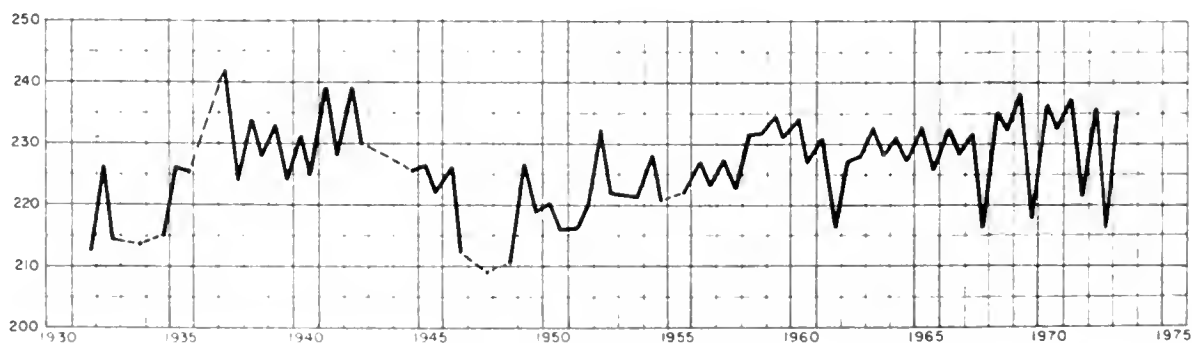
GILROY - HOLLISTER VALLEY
SOUTH SANTA CLARA COUNTY (3-03.01)
WELL NUMBER 9S/3E - 27C2, 22P1
GROUND SURFACE ELEVATION 347'354'



SALINAS VALLEY
PRESSURE AREA - 400' AQUIFER (3-04.01)
WELL NUMBER 14S/3E - 18J1
GROUND SURFACE ELEVATION 69'



SALINAS VALLEY
UPPER VALLEY AREA (3-04.05)
WELL NUMBER 19S/7E - 10P1
GROUND SURFACE ELEVATION 315'



----- CONNECTS MEASUREMENTS MADE AT INTERVALS OF A YEAR OR MORE

FLUCTUATION OF WATER LEVEL IN WELLS

Appendix D

SURFACE WATER QUALITY DATA

This appendix contains surface water quality data collected at stream and estuarine stations in the Central Coastal Area during the period from October 1, 1972, through September 30, 1973. Samples were collected by the Department of Water Resources, U. S. Bureau of Reclamation, U. S. Geological Survey, and Santa Cruz County Health Department.

The Department of Water Resources Laboratory used procedures from the latest edition of "Standard Methods for the Examination of Water and Wastewater" for the determination of mineral, nutrient, and biological constituents. Pesticides are determined in accordance with the "Guide to the Analysis of Pesticide Residues", U. S. Department of Health, Education and Welfare, 1965. Laboratory services for the U. S. Bureau of Reclamation are provided by the U. S. Air Force at McClellan Air Force Base. It uses procedures in accordance with the "FWPCA Methods for Chemical Analysis of Water and Wastes", November 1968, for all parameters.

Two numbering systems are used in this bulletin for identifying water quality stations. The first is for those stations for which the flow of water can be measured readily, as in streams and rivers. This system is described in Bulletin No. 157, "Index to Stream Gaging Stations In and Adjacent to California, 1970", Department of Water Resources.

The second numbering system is used for stations located in broad water bodies. This system is described as follows: The first two digits show the hydrographic unit as identified in the introduction to Appendix A. The third digit identifies the type of water body and, for this publication, is a "B" for Bay system; "L" for lake; "O" for Pacific Ocean; "R" for reservoir; and "S" for slough. The next digit is the last digit of the latitude in degrees, "3" for 33°, or "9" for 29°. The last three digits are the minutes of latitude to the tenth of a minute. The last four digits are the longitude in the same manner as latitude. A fifth digit indicates a sequence number when two stations have the same 8-digit latitude and longitude numbers.

Example: E0 B 802.3 207.1 2

E0	San Francisco Bay
B	Water Body -- Bay
8	38° Latitude
02.3	02.3' Latitude
2	122° Longitude
07.1	07.1' Longitude
2	Second Station

TABLE D-1
SAMPLING STATION DATA AND INDEX

Station	Station Number	Location		Beginning of Record	Data on Pages Indicated								Figure Number D-1
		Latitude ° ' "	Longitude ° ' "		Table Number								
					D-2	D-3	D-4	D-5	D-6	D-7	D-8		
ALISAL CREEK AT OLD STAGE ROAD	D2 1255.50	36 41 30	121 34 06	Jan. 1952	42								37
APTOS CREEK BELOW VALENCIA CREEK	D0 2020.00	36 58 26	121 54 10	March 1970	41		59	69					37
ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE	E5 1423.01	37 34 24	121 41 18	Nov. 1972	53	57	67	76					38
BIG RIVER NEAR MENDOCINO	F8 2720.00	39 18 48	123 42 12	Jan. 1959	54								39
BLANCO DRAIN AT PUMP LIFT	D2 1030.30	36 42 36	121 44 36	May 1970	42	57	59	69	78				37
BRANCIFORTE CREEK AT SANTA CRUZ	D0 1100.00	36 59 10	122 00 47	March 1970	41		59	69					37
CARMEL RIVER AT ROBLES DEL RIO	D4 1200.00	36 28 30	121 43 36	Jan. 1952	43		59	69					37
CHADBOURNE SLOUGH AT CHADBOURNE ROAD	EO5 811.0 204.8	38 10 57	122 04 50	Jan. 1967	51		66	75					38
CORDELIA SLOUGH AT CYGNUS	EO5 809.2 205.3	38 09 10	122 05 19	Jan. 1967	50		65	74					38
CORDELIA SLOUGH AT UPPER END	EO5 811.5 207.2	38 11 27	122 07 09	Sept. 1967	52		66	75					38
GABILAN CREEK NEAR SANTA RITA	D2 1240.00	36 45 18	121 36 36	Jan. 1952	42								37
GREEN VALLEY CREEK AT CORDELIA	E3 2100.51	38 12 42	122 07 47	Dec. 1968	53		67	76					38
GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH	EOB 807.0 202.3	38 07 02	122 02 19	Jan. 1968	49	57	65	73					38
HILL SLOUGH AT GRIZZLY ISLAND ROAD	EO5 813.6 201.2	38 13 34	122 01 14	Jan. 1967	52		66	75					38
HONKER BAY NEAR WHEELER POINT	EOB 804.4 156.2	38 04 26	121 56 12	Jan. 1968	48		64	73					38
LAKE MERRITT AT BOATHOUSE DOCK	E4L 748.1 215.6	37 48 08	122 15 35	March 1972	53			76	78				38
MERRITT LAKE DRAIN AT PUMP	D2 1006.60	36 45 06	121 44 12	Aug. 1970	42		59	69	78				37
MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD	EO5 811.2 158.5	38 11 14	121 58 32	Feb. 1967	51		66	75					38
NAPA RIVER NEAR NAPA	E3 1250.00	38 22 06	122 18 08	Nov. 1929	53								38
NAVARRO RIVER NEAR NAVARRO	F8 2100.00	39 10 15	123 39 55	Jan. 1959	54								39
NOYO RIVER NEAR FORT BRAGG	F8 3100.00	39 25 55	123 44 10	Jan. 1951	54								39
OLD SALINAS RIVER ABOVE TEMBLADERO SLOUGH	D2 1006.50	36 46 12	121 47 12	April 1972	42	57							37
PACHECO CREEK AT HIGHWAY 156 BRIDGE	D1 1667.50	36 56 36	121 23 00	Jan. 1952	42								37
PAJARO RIVER AT CHITTENDEN	D1 1250.00	36 54 00	121 35 54	Dec. 1951	41		59	69					37
PAJARO RIVER AT THURWACHTER ROAD	D1 1075.30	36 52 48	121 47 30	May 1970	41	57							37
PANCHO RICO CREEK AT SARGENTS ROAD	D2 1773.20	36 01 12	120 53 18	Jan. 1952	43								37
QUAIL CREEK AT OLD STAGE ROAD	D2 1260.50	36 37 00	121 31 18	Jan. 1952	42								37
RUSSIAN RIVER NEAR GUERNEVILLE	F9 1100.00	38 30 00	122 56 05	Nov. 1969	54						80		39
SACRAMENTO RIVER AT CHIPPS ISLAND	EOB 802.8 155.0	38 02 47	121 55 02	Jan. 1968	46	57	62	71	78				38
SALINAS RECLAMATION CANAL AT AIRPORT WAY	D2 1020.70	36 39 42	121 37 18	May 1970	42	57							37
SALINAS RECLAMATION CANAL AT ALISAL S.T.P.	D2 1016.50	36 40 06	121 38 06	May 1969	42								37
SALINAS RIVER NEAR BRADLEY	D2 1850.00	35 55 42	120 52 00	Aug. 1958	43		59	69					37
SALINAS RIVER NEAR GONZALES	D2 1325.10	36 29 12	121 28 06	May 1969	43	57	59	69					37
SAN BENITO RIVER AT HIGHWAY 156 BRIDGE	D1 2000.00	36 51 06	121 25 42	March 1957	42								37
SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL	D1 2450.00	36 36 30	121 12 00	Aug. 1958	42		59	69					37
SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)	EOB 736.2 212.0	37 36 10	122 12 00	June 1971	43		60	70	78		82		38
SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)	EOB 735.0 215.0	37 35 01	122 14 59	Sept. 1969	43		59	69	78		82		38
SAN FRANCISCO BAY AT TREASURE ISLAND	EOB 749.2 222.4	37 49 15	122 22 26	July 1965	44		60	70	78		82		38
SAN LORENZO CREEK AT FOOTHILL LINE	D2 1663.05	36 16 06	121 04 06	Jan. 1952	43								37
SAN LORENZO RIVER AT BOULDER CREEK	D0 1498.01	37 06 47	122 06 40	March 1970	41		59	69					37
SAN LORENZO RIVER AT PARADISE PARK	D0 1180.01	37 00 37	122 02 34	Sept. 1969	41		59	69		79			37
SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER	EOB 805.3 226.3	38 05 20	122 26 20	March 1971	49		64	73					38
SAN PABLO BAY NEAR PINOLE POINT	EOB 801.8 222.3	38 01 50	122 22 15	March 1971	44	57	60	71					38
SAN PABLO BAY NEAR RODEO	EOB 803.5 217.0	38 03 50	122 17 00	March 1971	46	57	62	72	78				38
SCOTT CREEK AT HIGHWAY 1	D0 4010.01	37 02 26	122 13 39	March 1970	41		59	69					37
SOQUEL CREEK AT SOQUEL	D0 3100.00	36 59 29	121 57 17	Dec. 1951	41		59	69					37
SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES	EOB 802.7 207.0	38 02 40	122 07 00	Sept. 1972	45	57	61	71	78				38
SUISUN BAY OFF MIDDLE POINT	EOB 803.6 159.3	38 03 36	121 59 20	Jan. 1968	47		63	72					38
SUISUN BAY NEAR PORT CHICAGO	EOB 803.5 201.4	38 03 30	122 01 25	Aug. 1946	46								38
SUISUN BAY NEAR PRESTON POINT	EOB 804.0 203.0	38 03 58	122 03 00	Sept. 1968	47	57	63	72	78				38
SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND	EO5 810.8 202.8	38 10 50	122 02 45	Sept. 1968	50		65	74					38
UVAS CREEK NEAR MORGAN HILL BL UVAS DAM	D1 1371.50	37 03 36	121 40 18	Aug. 1952	42		59	69					37
ZAYANTE CREEK AT FELTON	D0 1220.01	37 02 53	122 04 00	March 1970	41		59	69					37

HYDROGRAPHIC AREA DESIGNATIONS IN THE CENTRAL COASTAL AREA

Central Coastal Area

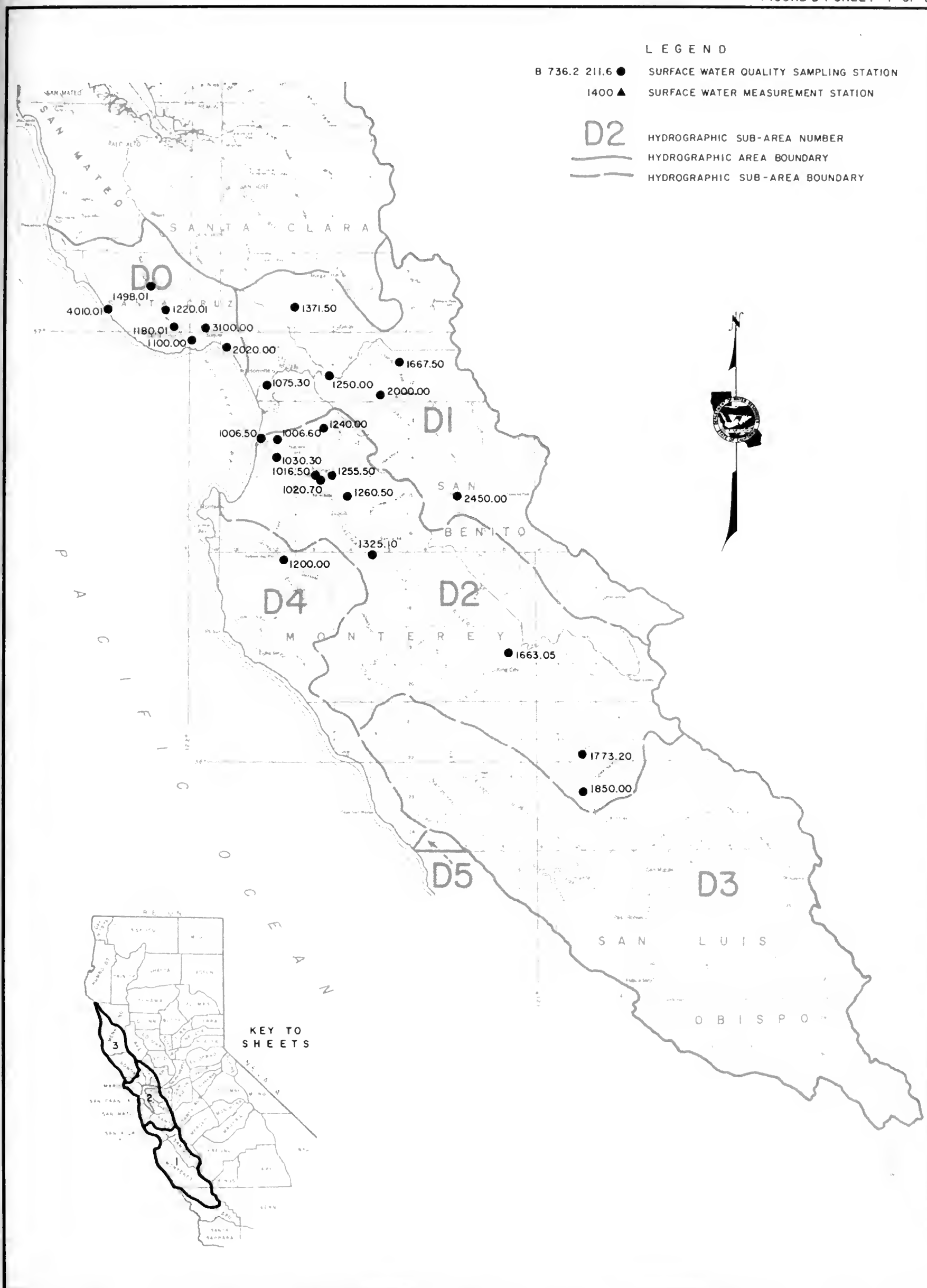
D0 Santa Cruz
D1 Pajaro-San Benito Rivers
D2 Lower Salinas River
D3 Upper Salinas River
D4 Monterey Coast

San Francisco Bay Area

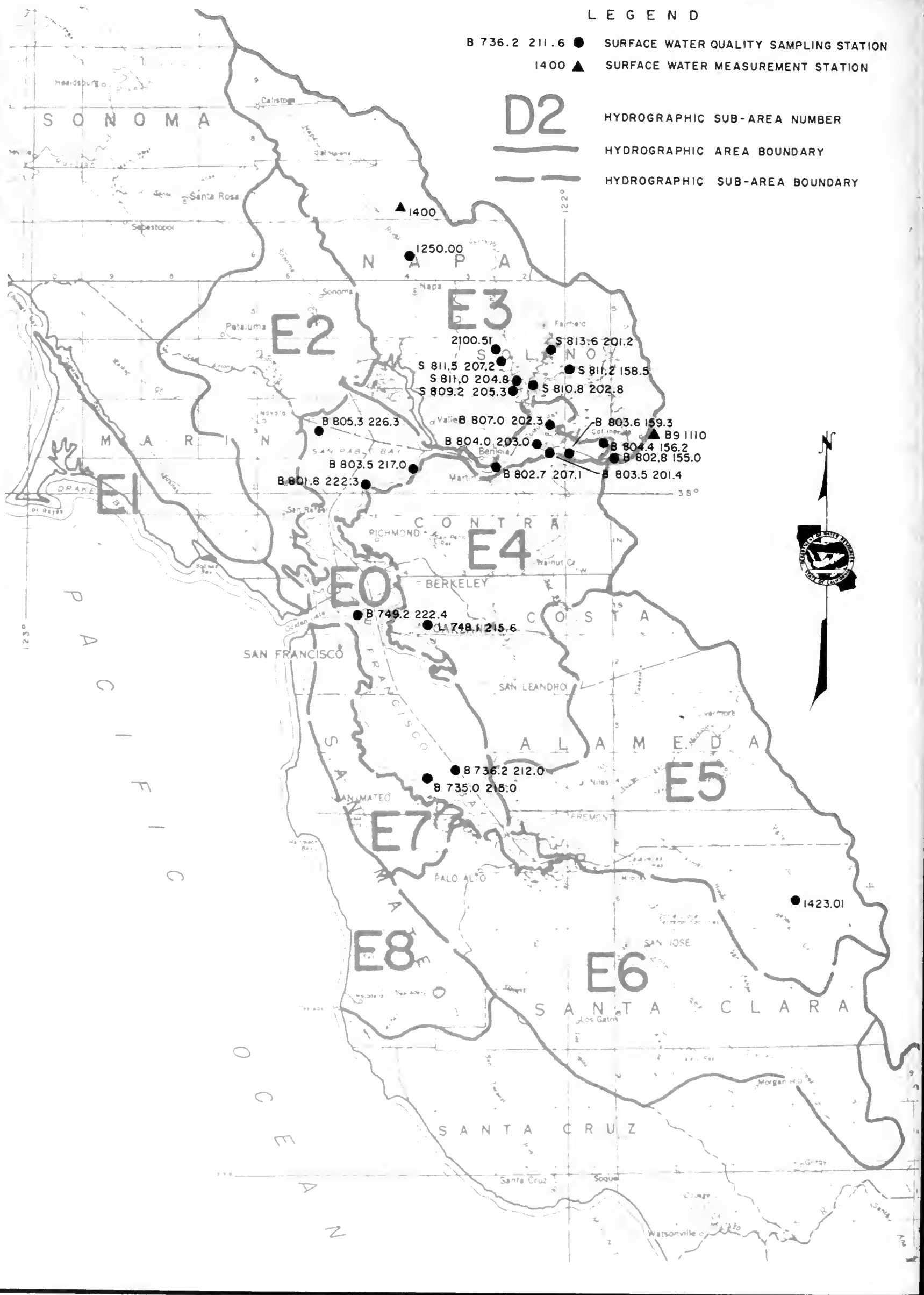
E0 San Francisco Bay
E1 Coast-Marin
E2 Marin-Sonoma
E3 Napa-Solano
E4 East Bay

North Coastal Area

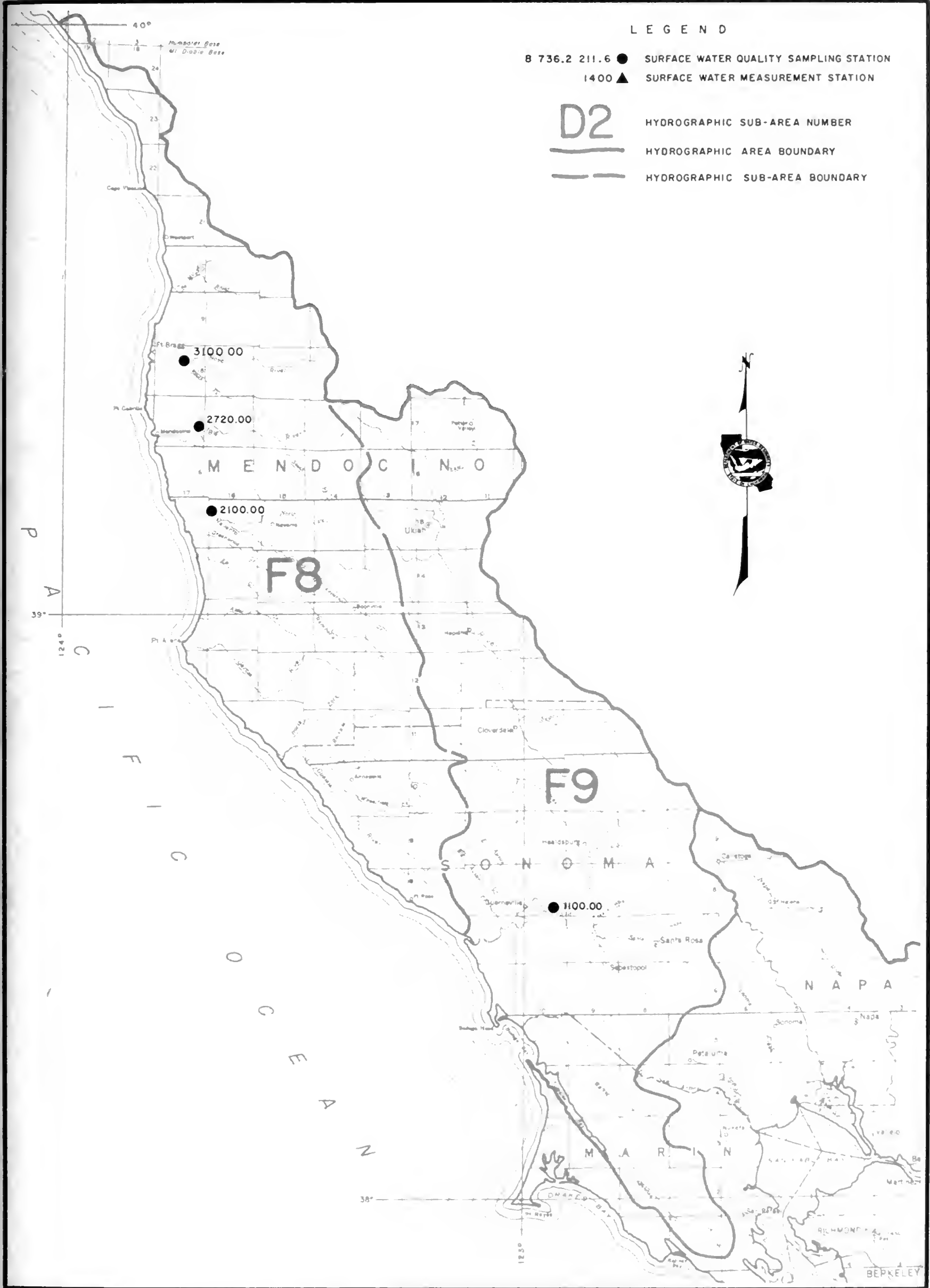
F8 Mendocino Coast
F9 Russian River



SURFACE WATER OBSERVATION STATIONS 1972-73



SURFACE WATER OBSERVATION STATIONS 1972-73



SURFACE WATER OBSERVATION STATIONS 1972-73

TABLE D-2

MINERAL ANALYSES OF SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation
 5050 - Department of Water Resources
 5063 - Santa Cruz County Health Department

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock

G.H. - Instantaneous gage height in feet above an established datum
 Q - Instantaneous discharge in cubic feet per second
 DEPTH - Depth in feet at which sample was collected

DO - Dissolved oxygen content in milligrams per liter
 SAT - Percent of normal dissolved oxygen saturation

TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)

PH - Measure of acidity (<7) or alkalinity (>7) of water

EC - Electrical conductance in micromhos at 25°C

TDS - Gravimetric determination of total dissolved solids at 180°C
 SUM - Total dissolved solids by summation of analyzed constituents

TH - Total hardness
 NCH - Noncarbonate hardness - any excess of total hardness over total alkalinity

TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hack Nephelometer (A)

SAR - Sodium adsorption ratio

PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum.

Mineral Constituents

B	-	Boron	K	-	Potassium
CA	-	Calcium	MG	-	Magnesium
CL	-	Chloride	NA	-	Sodium
CO3	-	Carbonate	NO3	-	Nitrate
F	-	Fluoride	SI02	-	Silica
HCO3	-	Bicarbonate	S04	-	Sulfate

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					LABORATORY PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR	
DO 1100.00 BRANCIFORTE CREEK AT SANTA CRUZ																					
03/19/73 1415	5063		10.0 88	50.0F 10.0C	7.2	300	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1330	5050 5050	1E	9.7 99	62 F 17 C	7.7 8.3	450 482	41 2.05 40	16 1.37 27	38 1.65 33	--	0 .00	182 2.98	--	33 .93	--	--	--	296	171 22	1A 1.3	
DO 1180.01 SAN LORENZO RIVER AT PARADISE PARK																					
10/20/72 1430	5063		9.0 96	66 F 19 C	7.6	397	--	--	--	--	--	--	--	--	--	--	--				
11/20/72 1030	5063		11.5 104	52 F 11 C	7.6	383	--	--	--	--	--	--	--	--	--	--	--				
03/19/73 1000	5063		11.0 97	50.0F 10.0C	7.5	335	--	--	--	--	--	--	--	--	--	--	--				
07/03/73 1020	5050 5050		10.9 110	61 F 16 C	8.0 8.0	310 368	41 2.05 56	8.2 .67 18	21 .91 25	1.8 .05 1	0 .00	135 2.21 61	43 .90 25	19 .54 15	.2 .00	.10	--	237 201	136 26	1A 0.8	
07/30/73	5063		1.5 16	68 F 20 C	7.8	340	--	--	--	--	--	--	--	--	--	--	--				
09/13/73	5063		11.0 113	62 F 17 C	7.8	350	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1000	5050 5050		10.2 98	57 F 14 C	7.7 8.3	330 376	38 1.90 51	9.5 .78 21	24 1.04 28	--	0 .00	134 2.20	--	25 .71	--	--	--	226	134 24	0A 0.9	
DO 1220.01 ZAYANTE CREEK AT FELTON																					
03/19/73 1115	5063		11.5 101	49.0F 9.4C	7.4	415	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1115	5050 5050	7E	10.9 105	56 F 13 C	7.7 8.1	330 374	39 1.95 54	7.7 .63 17	24 1.04 29	--	0 .00	125 2.05	--	25 .71	--	--	--	238	129 27	0A 0.9	
DO 1498.01 SAN LORENZO RIVER AT BOULDER CREEK																					
03/19/73 1200	5063		11.5 100	48.0F 8.9C	7.2	195	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1150	5050 5050	5E	9.6 95	58 F 14 C	7.7 8.2	440 485	46 2.30 46	12 1.02 20	39 1.70 34	--	0 .00	165 2.70	--	40 1.13	--	--	--	281	166 31	1A 1.3	
DO 2020.00 APTOS CREEK BELOW VALENCIA CREEK																					
03/19/73 1330	5063		10.5 90	48 F 9 C	7.7	440	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1400	5050 5050	1E	9.6 96	60 F 16 C	8.0 8.5	670 778	--	--	59 2.57 32	--	13 .43	247 4.05	--	59 1.66	--	--	--	454	269	0A 1.6	
DO 3100.00 SOQUEL CREEK AT SOQUEL																					
03/19/73 1300	5063		10.5 92	49.0F 9.4C	7.8	530	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1330	5050 5050	2.72	10.4 119	72 F 22 C	8.0 8.3	650 724	59 2.94 40	26 2.17 30	51 2.22 30	--	0 .00	196 3.21	--	74 2.09	--	--	--	443	256 95	4A 1.4	
DO 4010.01 SCOTT CREEK AT HIGHWAY 1																					
03/19/73 0930	5063		11.0 97	50.0F 10.0C	6.8	225	--	--	--	--	--	--	--	--	--	--	--				
09/27/73 1530	5050 5050	2E	10.4 105	61 F 16 C	7.3 8.3	370 311	24 1.20 39	9.3 .76 25	25 1.09 36	--	0 .00	103 1.69	--	26 .73	--	--	--	190	98 14	0A 1.1	
01 1075.30 PAJARO RIVER AT THURWACHTER ROAD																					
10/25/72	5050 5050		20.0 238	76.1F 24.5C	8.4	8240	--	--	--	--	--	--	--	.2 .00	1.30	--	--				
01 1250.00 PAJARO RIVER AT CHITTENDEN																					
01/23/73 0940	5050 5050	4.35	9.7 81	46 F 8 C	7.5 7.9	270 426	30 1.50 36	18 1.48 36	27 1.17 28	--	0 .00	148 2.43 77	--	22 .62 20	6.6 .11 3	.20	--	149 28		1.0	
07/18/73 0945	5050 5050	1.00	10.4 110	65 F 18 C	8.4 8.1	1400 1950	--	--	--	--	0 .00	531 8.70	--	--	--	--	--	553			

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN					MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					LABORATORY PH	EC	CA	MG	NA	K	CO3	PERCENT REACTANCE VALUE				B	F	TDS SUM	TH NCH	TURB SAR	
												HC03	SO4	CL	NO3						

D1 1371.50 UVAS CREEK NR MORGAN HILL BL UVAS DAM																					
07/18/73	5050		10.9	65	F 8.2	250	--	--	--	--	0	171	--	--	--	--	--		152		
1215	5050		117	18	C 8.1	314					.00	2.80				--	--				
D1 1667.50 PACHECO CREEK AT HIGHWAY 156 BRIDGE																					
05/16/73	5050		12.0	68.0F	8.4	425	34	27	24	1.4	0	222	31	26	.0	.10	--	261	197		
0800	5050		132	20.0C	8.1	487	1.70	2.22	1.04	.04	.00	3.64	.65	.73	.00	--	253	14	0.7		
							34	44	21	1		73	13	15							
D1 2000.00 SAN BENITO RIVER AT HIGHWAY 156 BRIDGE																					
05/16/73	5050		87.0F			1250	41	83	125	5.9	0	415	227	93	26.0	1.00	--	836	446		
1315	5050		30.5C	8.1	1340	2.05	6.83	5.44	.15	.00	6.80	4.73	2.62	.42	--	--	806	104	2.6		
							14	47	38	1		47	32	18	3						
D1 2450.00 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL																					
05/16/73	5050		13.1	80.0F	8.4	1400	15	118	138	2.6	0	414	347	98	.1	1.30	--	929	524		
1225	5050		167	26.6C	8.2	1460	.75	9.70	6.00	.07	.00	6.79	7.22	2.76	.00	--	924	183	2.6		
							5	59	36			40	43	16							
07/18/73	5050		9.8	80	F 8.4	850	--	--	--	--	17	418	--	--	--	--	--		411		
1340	5050		125	27	C 8.5	876					.57	6.85				--	--				
D2 1006.50 OLD SALINAS RIVER ABOVE TEMBLADERO SLOUGH																					
10/25/72	5050		13.7		8.4		--	--	--	--	--	--	--	--	2.8	.80	--				
	5050					2500									.05	--	--				
D2 1006.60 MERRITT LAKE DRAIN AT PUMP																					
01/23/73	5050		7.3	45	F 6.9	2150	218	145	240	--	0	269	--	221	158	.50	--		1140		
1120	5050		60	7	C 8.1	2860	10.88	11.92	10.44	--	.00	4.41	--	6.23	2.55	--	--		920	3.1	
							33	36	31			33		47	19						
07/18/73	5050		9.4	64	F 8.2	1950	--	--	--	--	0	473	--	--	--	--	--		1010		
0820	5050		98	18	C 8.3	2950					.00	7.75				--	--				
08/14/73	5050		7.6	70	F 8.0	2890	154	138	318	7.0	0	525	758	313	--	.40	--	2080	951		
0930	5050		85	21	C 8.1	2850	7.68	11.35	13.83	.18	.00	8.60	15.78	8.83	--	--	1947	522	4.5		
							23	34	42	1		26	48	27							
D2 1016.50 SALINAS RECLAMATION CANAL AT ALISAL STP																					
01/23/73	5050		8.2	54	F 7.6	800	61	26	85	--	0	195	--	120	31.0	.10	--		259		
1320	5050		76	12	C 8.0	982	3.04	2.14	3.70	--	.00	3.20	--	3.38	.50	--	--		99	2.3	
							34	24	42			45		48	7						
02/06/73	5050		7.1	57	F 7.8	420	25	9.5	46	--	0	154	--	48	11.0	.00	--		102		
1420	5050		69	14	C 7.6	519	1.25	.78	2.00	--	.00	2.52	--	1.35	.18	--	--		0	2.0	
							31	19	50			62		33	4						
D2 1020.70 SALINAS RECLAMATION CANAL AT AIRPORT WAY																					
10/25/72	5050		1.0	58.1F	7.2	1120	--	--	--	--	--	--	--	--	.1	.20	--				
0730	5050		10	14.5C		2150									.00	--	--				
D2 1030.30 BLANCO DRAIN AT PUMP LIFT																					
10/25/72	5050		9.5		8.2		--	--	--	--	--	--	--	--	39.0	1.80	--				
0955	5050					3840									.63	--	--				
01/23/73	5050		11.0	54	F 8.2	2800	54	146	535	--	0	466	--	367	133	1.30	--		737		
1240	5050		102	12	C 8.2	3700	2.69	12.01	23.27	--	.00	7.64	--	10.35	2.15	--	--		353	8.6	
							7	32	61			38		51	11						
02/06/73	5050		8.7	56	F 7.9	850	94	91	250	--	0	301	--	156	113	.60	--		611		
1330	5050		83	13	C 8.1	2160	4.69	7.48	10.88	--	.00	4.93	--	4.40	1.82	--	--		362	4.4	
							20	32	47			44		39	16						
07/18/73	5050		8.6	62	F 8.0	1350	--	--	--	--	0	375	--	--	--	--	--		549		
0730	5050		88	17	C 8.1	1950					.00	6.15				--	--				
08/14/73	5050		8.2	65	F 8.2	2380	96	100	268	6.0	0	428	572	192	3.6	1.00	--	1680	651		
0800	5050		87	18	C 7.9	2370	4.79	8.22	11.66	.15	.00	7.01	11.91	5.41	.06	--	--	1449	300	4.6	
							19	33	47	1		29	49	22							
D2 1240.00 GABILAN CREEK NEAR SANTA RITA																					
02/28/73	5050					350	42	11	21	--	0	164	--	22	3.4	.00	--		150		
0900	5050	40			7.3	398	2.10	.90	.91	--	.00	2.69	--	.62	.05	--	--		16	0.7	
							54	23	23			80		18	1						
D2 1255.50 ALISAL CREEK AT OLD STAGE ROAD																					
02/28/73	5050					420	39	12	36	--	0	155	--	44	6.7	.00	--		146		
0915	5050	8.0			7.5	465	1.95	.99	1.57	--	.00	2.54	--	1.24	.11	--	--		20	1.3	
							43	27	35			65		32	3						
D2 1260.50 QUAIL CREEK AT OLD STAGE ROAD																					
02/28/73	5050					390	34	15	40	--	0	136	--	46	4.8	.00	--		146		
0935	5050	10			7.5	446	1.70	1.23	1.74	--	.00	2.23	--	1.30	.08	--	--		35	1.4	
							36	26	37			62		36	2						

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER						
					LABORATORY PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAW						
.....																										
D2 1325.10 SALINAS RIVER NEAR GONZALES																										
10/25/72	S050		8.8	61.7F			--	--	--	--	--	--	--	1.1	.10	--										
0845	S050		90	16.5C		495								.02	--	--										
01/23/73	S050		10.7	49 F	8.0	330	48	14	28	--	0	157	--	23	3.9	.10	--			178						
1420	S050		94	9 C	8.0	490	2.40	1.15	1.22		.00	2.57		.65	.06	--			49	0.9						
							50	24	26			78		20	2											
07/17/73	S050		11.7	74 F	8.4	350	--	--	--	--	0	155	--	--	--	--	--			178						
1215	S050		137	23 C	8.1	462					.00	2.54				--	--									
D2 1663.05 SAN LORENZO CREEK AT FOOTHILL LINE																										
03/07/73	S050					1800	78	76	211	--	0	272	--	82	3.9	.80	--			508						
1220	S050	35			7.9	1810	3.89	6.25	9.18		.00	4.46		2.31	.06	--			284	4.1						
							20	32	48			65		34	1											
D2 1773.20 PANCHO RICO CREEK AT SARGENTS ROAD																										
03/07/73	S050					2460	173	91	276	--	0	195	--	84	7.3	1.10	--			806						
1045	S050	20			8.1	2470	8.63	7.48	12.01		.00	3.20		2.37	.12	--			646	4.2						
							31	27	43			56		42	2											
D2 1850.00 SALINAS RIVER NEAR BRADLEY																										
07/17/73	S050	4.79	14.7	70 F	8.4	220	--	--	--	--	0	123	--	--	--	--	--			128						
1015	S050		167	21 C	8.3	294					.00	2.02				--	--									
D4 1200.00 CARMEL RIVER AT RORLES DEL RIO																										
07/17/73	S050	3.53	17.8	72 F	8.4	700	--	--	--	--	0	186	--	--	--	--	--			250						
1335	S050		205	22 C	8.2	731					.00	3.05				--	--									
FO R 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																										
10/11/72	S050		6.7	65 F	7.9	45000	--	--	--	--	--	--	--	18800	--	--	--	35100		2A						
0930	S050		71	18 C		48400								530.16	--	--	--									
11/27/72	S050		7.8	57 F	7.9	38000	--	--	--	--	--	--	--	17100	--	--	--	31200		3A						
1230	S050		75	14 C		43700								482.22	--	--	--									
12/11/72	S050		8.3	48 F	7.9	40000	--	--	--	--	--	--	--	19000	--	--	--	28700		3A						
1115	S050		71	9 C		42200								535.80	--	--	--									
01/23/73	S050		9.7	49 F	7.9	28000	--	--	--	--	--	--	--	10800	--	--	--	20000		2A						
1130	S050		85	9 C		29300								304.56	--	--	--									
02/06/73	S050		9.3	51 F	7.9	28000	--	--	--	--	--	--	--	10100	--	--	--	19600		4A						
1030	S050		83	11 C		28600								284.82	--	--	--									
03/20/73	S050		9.2	53 F	8.1	26000	--	--	--	--	--	--	--	8960	--	--	--	17400		19A						
0915	S050		84	12 C		26600								252.67	--	--	--									
04/05/73	S050		9.5	58 F	8.2	26000	--	--	--	--	--	--	--	9620	--	--	--	18000		7A						
0915	S050		93	14 C		27400								271.28	--	--	--									
05/03/73	S050		8.8	60 F	8.2	33000	--	--	--	--	--	--	--	11700	--	--	--	22600		15A						
0810	S050		88	16 C		36300								329.94	--	--	--									
06/18/73	S050		9.0	66 F	8.0	38000	--	--	--	--	--	--	--	14400	--	--	--	28000		2A						
1000	S050		96	19 C		41300								406.08	--	--	--									
07/30/73	S050		6.6	69 F	8.1	41000	--	--	--	--	--	--	--	15900	--	--	--	30000		2A						
0830	S050		73	21 C		44400								448.38	--	--	--									
08/14/73	S050		6.7	67 F	8.2	43000	--	--	--	--	--	--	--	16500	--	--	--	31500		3A						
0920	S050		72	19 C		43600								465.30	--	--	--									
09/13/73	S050		6.9	66 F	8.2	44000	--	--	--	--	--	--	--	16800	--	--	--	31800		1A						
0810	S050		74	14 C		46900								473.76	--	--	--									
FO R 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																										
10/11/72	S050		7.2	65 F	7.9	45000	--	--	--	--	--	--	--	17800	--	--	--	35200		3A						
1100	S050		76	18 C		47500								501.96	--	--	--									
11/27/72	S050		8.2	57 F	8.1	40000	--	--	--	--	--	--	--	16900	--	--	--	31700		4A						
1330	S050		79	14 C		43600								476.58	--	--	--									
12/11/72	S050		9.2	45 F	8.0	41000	--	--	--	--	--	--	--	15900	--	--	--	28500		4A						
1200	S050		76	7 C		42300								448.38	--	--	--									
01/23/73	S050		9.1	49 F	7.9	32000	--	--	--	--	--	--	--	11700	--	--	--	22600		6A						
1220	S050		79	9 C		32600								329.94	--	--	--									
02/06/73	S050		9.1	51 F	7.9	28000	--	--	--	--	--	--	--	10000	--	--	--	19000		4A						
1100	S050		81	11 C		28100								282.00	--	--	--									

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. Q DEPTH	OO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					LABORATORY PH	EC	CA	MG	NA	K	CO3	MC03	SO4	CL	PERCENT NO3	RF VALUE	B	F SI02	T05 SUM	TM NCM	TURB SAR
FO B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662) CONTINUED																					
03/20/73 1015	5050 5050		9.6 88	53 12	F C	8.0 26000 25700	--	--	--	--	--	--	8770 247.31	--	--	--	17000		53A		
04/05/73 1005	5050 5050		9.6 95	59 15	F C	8.2 26000 26800	--	--	--	--	--	--	8930 251.83	--	--	--	17800		17A		
05/03/73 0900	5050 5050		9.0 90	60 16	F C	8.2 34000 36400	--	--	--	--	--	--	12400 349.68	--	--	--	23000		10A		
06/18/73 1045	5050 5050		11.1 119	66 19	F C	8.0 40000 42500	--	--	--	--	--	--	14800 417.36	--	--	--	28900		3A		
07/30/73 0930	5050 5050		6.3 70	70 21	F C	8.1 43000 44500	--	--	--	--	--	--	16000 451.20	--	--	--	30300		8A		
08/14/73 1000	5050 5050		6.1 65	66 19	F C	8.0 44000 43900	--	--	--	--	--	--	16700 470.94	--	--	--	32000		21A		
09/13/73 0910	5050 5050		7.0 73	64 18	F C	8.2 45000 47400	--	--	--	--	--	--	17000 479.40	--	--	--	32400		2A		
FO B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND																					
10/11/72 0850	5050 5050		7.1 73	62 17	F C	7.9 42000 45500	--	--	--	--	--	--	17200 485.04	--	--	--	32600		2A		
11/27/72 1100	5050 5050		8.1 77	56 13	F C	7.9 37500 40000	--	--	--	--	--	--	14500 408.90	--	--	--	27500		6A		
12/11/72 1000	5050 5050		8.6 74	48 9	F C	8.1 39000 40100	--	--	--	--	--	--	14600 411.72	--	--	--	26600		4A		
01/23/73 1000	5050 5050		9.8 84	48 9	F C	7.8 15000 16900	--	--	--	--	--	--	5400 152.28	--	--	--	10900		20A		
02/06/73 0840	5050 5050		9.5 84	50 10	F C	8.3 23000 23700	--	--	--	--	--	--	8090 228.14	--	--	--	15800		10A		
03/20/73 0730	5050 5050		9.0 82	52 11	F C	8.1 34000 36400	--	--	--	--	--	--	12100 341.22	--	--	--	23200		6A		
04/05/73 0800	5050 5050		9.0 85	55 13	F C	8.2 34000 37600	--	--	--	--	--	--	12400 349.68	--	--	--	24300		5A		
05/03/73 0645	5050 5050		8.2 78	56 13	F C	8.2 41000 45500	--	--	--	--	--	--	15300 431.46	--	--	--	29300		5A		
06/18/73 0845	5050 5050		8.7 91	64 18	F C	8.1 40000 45200	--	--	--	--	--	--	16000 451.20	--	--	--	31300		3A		
07/30/73 0700	5050 5050		6.5 67	63 17	F C	8.0 44000 47900	--	--	--	--	--	--	17900 504.78	--	--	--	32200		3A		
08/14/73 0755	5050 5050		6.7 69	63 17	F C	8.1 44000 48000	--	--	--	--	--	--	17500 493.50	--	--	--	33000		1A		
09/13/73 0640	5050 5050		7.4 76	62 17	F C	8.1 45000 47700	--	--	--	--	--	--	17000 479.40	--	--	--	28200		1A		
FO B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT																					
10/04/72 1300	5001 5001		7.5 77	63 17	F C	8.0 39300	--	--	--	--	0 .00	124 2.03	--	14600 411.72	--	--	2.0		3AF		
11/16/72 1010	5001 5001		8.7 84	57 14	F C	7.8 29700	--	--	--	--	0 .00	102 1.67	--	11600 327.12	--	--	6.0		4AF		
12/13/72 0930	5001 5001		10.5 88	46 8	F C	7.0 23200	--	--	--	--	0 .00	101 1.66	--	6500 183.30	--	--	11.4		8AF		
02/14/73 1200	5001 5001		10.3 93	52 11	F C	7.8 5800	--	--	--	--	0 .00	87 1.43	--	1700 47.94	--	--	14.8		38AF		
04/11/73 1115	5001 5050		8.5 84	59.0F 15.0C	7.6 7.9	19100 22400	--	--	--	--	0 .00	112 1.84	--	8040 226.73	--	--	10.8		7AF		
05/09/73 0925	5001 5050		8.8 87	59.0F 15.0C	8.0 7.6	27500 32000	--	--	--	--	0 .00	119 1.95	--	12100 341.22	--	--	3.8		9AF		
06/12/73 1430	5001 5050		8.4 92	68.0F 20.0C	7.9 7.8	32800 37300	--	--	--	--	0 .00	121 1.98	--	12900 363.78	--	--	3.4		9AF		

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.W. 0 DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR
FO R 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT						CONTINUED													
07/10/73 1415	5001 5050		7.8		7.9 41000 7.9 42700	--	--	--	--	0 .00	131 2.15	-- 15000 423.00	--	--	-- 4.2			9AF	
08/07/73 1235	5001 5050		8.3 91	68.0F 20.0C	7.9 38300 8.1 42500	--	--	--	--	0 .00	132 2.16	-- 15300 431.46	--	--	-- 3.8			5AF	
09/05/73 1135	5001 5050		7.9 83	64.4F 18.0C	7.9 38580 8.0 42600	--	--	--	--	0 .00	130 2.13	-- 15100 425.82	--	--	-- 3.6			9AF	
FO R 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES																			
10/04/72 1430	5001 5001		8.1 85	64 F 18 C	8.0 22200	--	--	--	--	-- .00	-- 108 1.77	-- 7600 214.32	--	--	-- 3.6			8AF	
10/18/72 1300	5001 5001		7.8 82	64 F 18 C	7.8 7.8 23800	--	--	--	--	0 .00	108 1.77	-- 7900 222.78	--	--	-- 5.6			5AF	
11/07/72 1115	5001 5050			59.0F 15.0C	 16600	--	--	3000 130.50	--	-- .00	-- 99 1.62	-- 5630 158.77	--	--	-- 10100 --				
11/16/72 1140	5001 5001		8.4 81	57 F 14 C	7.7 7.7 20700	--	--	--	--	0 .00	99 1.62	-- 7000 197.40	--	--	-- 9.4			16AF	
12/13/72 1045	5001 5001		10.3 87	46 F 8 C	7.9 7.8 17100	--	--	--	--	0 .00	95 1.56	-- 5000 141.00	--	--	-- 15.4			13AF	
01/15/73 1050	5001 5001		10.5 88	46 F 8 C	7.3 7.6 7680	--	--	--	--	0 .00	80 1.31	-- 2250 63.45	--	--	-- 16.2			30AF	
02/06/73 1200	5001 5050			50.0F 10.0C	 369	--	--	33 1.44	--	-- .00	-- 80 1.31	-- 50 1.41	--	--	-- 208 --				
02/14/73 1315	5001 5001		9.8 89	52 F 11 C	7.6 7.7 310	--	--	33 1.44	--	0 .00	80 1.31	-- 46 1.30	--	--	-- 16.0			110AF	
03/15/73 1130	5001 5050		10.0 92	54 F 12 C	7.8 7.5 6990	--	--	--	--	0 .00	86 1.41	-- 2040 57.53	--	--	-- 15.4	3920		34AF	
03/28/73 0940	5001 5050		10.0 92	53.6F 12.0C	7.6 6900 7.4 6670	--	--	--	--	0 .00	91 1.49	-- 2430 68.53	--	--	-- 16.8	3810		20AF	
04/11/73 1240	5001 5050		8.8 89	60.8F 16.0C	7.5 6900 7.4 7670	--	--	--	--	0 .00	98 1.61	-- 2820 79.52	--	--	-- 15.6	4670		38AF	
04/25/73 1005	5001 5050		9.3 94	60.8F 16.0C	7.6 9800 7.6 11400	--	--	--	--	0 .00	98 1.61	-- 4200 118.44	--	--	-- 13.4	7180		16AF	
05/08/73 1130	5001 5050			61.7F 16.5C	 14800	--	--	2560 111.36	--	-- .00	-- 78 1.28	-- 4710 132.82	--	--	-- 8920 --				
05/09/73 1110	5001 5050		9.0 93	62.6F 17.0C	7.9 12350 7.7 14100	--	--	--	--	0 .00	100 1.64	-- 4670 131.69	--	--	-- 9.4	8870		27AF	
05/30/73 1510	5001 5050		8.4 90	66.2F 19.0C	7.9 17300 7.7 20900	--	--	--	--	0 .00	78 1.28	-- 5610 158.20	--	--	-- 6.4	11300		21AF	
06/12/73 1600	5001 5050		8.2 91	69.8F 21.0C	7.9 18000 7.9 17000	--	--	--	--	0 .00	102 1.67	-- 6900 194.58	--	--	-- 6.7	13000		8AF	
06/27/73 1410	5001 5050		7.8 89	71.6F 22.0C	7.9 21500 7.9 14600	--	--	--	--	0 .00	103 1.69	-- 7890 222.50	--	--	-- 7.0	15200		13AF	
07/11/73 1355	5001 5050		8.5 95	69.8F 21.0C	8.1 22740 8.0 24200	--	--	--	--	0 .00	108 1.77	-- 8780 247.60	--	--	-- 4.6	16900		18AF	
08/07/73 1130	5001 5050			68.0F 20.0C	 23300	--	--	4250 184.88	--	-- .00	-- 108 1.77	-- 8050 227.01	--	--	-- 15500 --				
08/07/73 1410	5001 5050		8.9 97	68.0F 20.0C	8.1 23200 8.1 24500	--	--	--	--	0 .00	108 1.77	-- 8780 247.60	--	--	-- 4.2	15900		18AF	
08/22/73 1100	5001 5050		8.4 90	66.2F 19.0C	7.9 21320 7.9 22500	--	--	--	--	0 .00	103 1.69	-- 7490 211.22	--	--	-- 4.6	14200		14AF	
08/28/73 1145	5001 5050			66.2F 19.0C	 15700	--	--	2800 121.80	--	-- .00	-- 98 1.61	-- 5180 146.08	--	--	-- 9970 --				
09/05/73 1305	5001 5050		8.1 85	64.4F 18.0C	8.0 21840 8.1 22900	--	--	--	--	0 .00	103 1.69	-- 7660 216.01	--	--	-- 5.0	15300		11AF	
09/19/73 0935	5001 5050		8.0 86	66.2F 19.0C	8.0 14850 7.9 17600	--	--	--	--	0 .00	98 1.61	-- 5760 162.43	--	--	-- 7.0	10800		15AF	

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD		MINERAL	CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER				
					LABORATORY PH	EC		CA	MG	NA	K	PERCENT REACTANCE VALUE				B	F	TDS SUM	TH NCH	TURB SAR
												CO3	HCO3	SO4	CL					
FO R 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND																				
10/04/72 1530	5001 5001		9.1 97	66 19	F C	8.1 3480	--	--	--	--	--	--	920 25.94	--	--	--	--	40AF		
10/18/72 1420	5001 5001	3	8.3 87	64 18	F C	7.7 5750	--	--	--	--	0 .00	82 1.34	-- 42.30	--	--	--	11.2	29AF		
11/15/72 1110	5001 5001	3	9.7 92	55 13	F C	7.7 2500	--	--	--	--	0 .00	72 1.18	-- 19.18	--	--	--	15.6	34AF		
12/12/72 0910	5001 5001	3	11.6 95	45 7	F C	7.7 429	--	--	--	--	0 .00	74 1.21	-- 2.26	--	--	--	19.8	21AF		
01/15/73 1200	5001 5001	3	10.6 89	46 8	F C	7.0 175	--	--	--	--	0 .00	58 .95	-- .39	--	--	--	15.6	80AF		
02/13/73 1240	5001 5001	3	10.0 90	52 11	F C	7.8 205	--	--	--	--	0 .00	73 1.20	-- .42	--	--	--	16.0	110AF		
03/15/73 1245	5001 5050	3	10.5 97	54 12	F C	8.0 254	--	--	--	--	0 .00	83 1.36	-- .56	--	--	--	154 17.6	37AF		
03/28/73 1100	5001 5050	3	10.5 97	53.6 12.0C	F C	7.6 246	--	--	--	--	0 .00	83 1.36	-- .56	--	--	--	152 17.6	40AF		
04/11/73 1345	5001 5050	3	9.4 95	60.8 16.0C	F C	7.5 352	--	--	--	--	0 .00	93 1.52	-- .96	--	--	--	186 18.2	32AF		
04/25/73 1200	5001 5050	3	10.2 103	60.8 16.0C	F C	8.2 416	--	--	--	--	0 .00	89 1.46	-- 1.58	--	--	--	232 16.6	32AF		
05/09/73 1225	5001 5050	3	9.3 98	64.4 18.0C	F C	8.1 2140	--	--	--	--	0 .00	85 1.39	-- 19.63	--	--	--	1190 12.6	33AF		
05/30/73 1640	5001 5050	3	9.0 100	69.8 21.0C	F C	7.8 2550	--	--	--	--	4.0 .13	70 1.15	-- 19.77	--	--	--	1410 15.6	48AF		
06/12/73 1710	5001 5050	3	8.5 96	71.6 22.0C	F C	7.9 2790	--	--	--	--	0 .00	82 1.34	-- 25.69	--	--	--	1660 15.0	45AF		
06/27/73 1530	5001 5050	3	8.7 101	73.4 23.0C	F C	8.0 6630	--	--	--	--	0 .00	82 1.34	-- 55.27	--	--	--	4090 13.4	31AF		
07/11/73 1530	5001 5050	3	9.0 104	73.4 23.0C	F C	8.1 8800	--	--	--	--	0 .00	87 1.43	-- 75.01	--	--	--	5480 10.4	48AF		
07/31/73 1340	5001 5001	3	8.6 103	77 25	F C	7.8 370	--	--	--	--	0 .00	73 1.20	--	--	--	--	18A 12.4			
08/07/73 1525	5001 5050	3	9.4 103	68.0 20.0C	F C	9.3 8830	--	--	--	--	0 .00	85 1.39	-- 76.42	--	--	--	5110 9.2	37AF		
08/22/73 1220	5001 5050	3	8.6 94	68.0 20.0C	F C	7.9 7460	--	--	--	--	0 .00	86 1.41	-- 61.76	--	--	--	4200 10.4	60AF		
09/05/73 1425	5001 5050	3	8.6 92	66.2 19.0C	F C	8.1 6050	--	--	--	--	0 .00	85 1.39	-- 50.20	--	--	--	3530 12.4	38AF		
09/19/73 1050	5001 5050	3	8.0 87	68.0 20.0C	F C	8.1 2110	--	--	--	--	0 .00	86 1.41	-- 15.14	--	--	--	1120 16.0	50AF		
FO R 803.5 201.4 SUITSUN BAY NEAR PORT CHICAGO																				
11/07/72 1040	5001 5050		59.0 15.0C				--	--	1620 70.47	--	--	--	-- 84.04	--	--	--	5400			
02/06/73 1100	5001 5050		50.0 10.0C			287	--	--	23 1.00	--	--	--	-- .93	--	--	--	171			
05/08/73 1100	5001 5050		66.2 19.0C			11400	--	--	2030 88.31	--	--	--	-- 99.83	--	--	--	6580			
08/07/73 1100	5001 5050		69.8 21.0C			15100	--	--	2540 110.49	--	--	--	-- 135.92	--	--	--	9100			
FO R 803.5 217.0 SAN PABLO BAY NEAR RODEO																				
10/04/72 1350	5001 5001	3	7.7 82	66 19	F C	8.0 31800	--	--	--	--	0 .00	930 15.24	-- 315.84	--	--	--	2.6	6AF		
11/16/72 1055	5001 5001	3	8.4 81	57 14	F C	7.8 24900	--	--	--	--	0 .00	101 1.66	-- 234.06	--	--	--	8.2	10AF		

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER				TURB SAR
					LABORATORY PH	EC	CA	MG	NA	K	CO3	HCO3	PERCENT REFRACTANCE VALUE	CL	NO3	B	F	TDS SUM	TH NCM				
FO R 803.5 217.0 SAN PABLO BAY NEAR RODEO CONTINUED																							
12/13/72	5001		10.7	46	F	7.9		--	--	--	--	0	100	--	6000	--	--				12AF		
1005	5001		90	8	C	7.9 21100						.00	1.64	--	169.20	--	--	11.6					
3																							
02/14/73	5001		10.0	52	F	7.6		--	--	--	--	0	86	--	1600	--	--				50AF		
1230	5001		90	11	C	7.7 5000						.00	1.41	--	45.12	--	--	15.4					
3																							
04/11/73	5001		8.8	60.8F	7.6	15200		--	--	--	--	0	106	--	6640	--	--	11700			10AF		
1150	5050		89	16.0C	7.3	17600						.00	1.74	--	187.25	--	--	12.2					
3																							
05/09/73	5001		8.8	60.8F	8.0	20700		--	--	--	--	0	112	--	7870	--	--	15600			16AF		
1010	5050		89	16.0C	7.6	23800						.00	1.84	--	221.93	--	--	6.0					
3																							
06/12/73	5001		8.2	68.0F	7.9	27800		--	--	--	--	0	112	--	10600	--	--	19900			26AF		
1510	5050		90	20.0C	7.8	21800						.00	1.84	--	298.92	--	--	4.3					
3																							
07/11/73	5001		7.7	68.0F	7.9	31920		--	--	--	--	0	121	--	11600	--	--	24000			31AF		
1305	5050		84	20.0C	7.9	35200						.00	1.98	--	327.12	--	--	4.4					
3																							
08/07/73	5001		8.0	66.2F	7.9	33400		--	--	--	--	0	124	--	12600	--	--	24600			17AF		
1310	5050		86	19.0C	8.1	37200						.00	2.03	--	355.32	--	--	4.4					
3																							
09/05/73	5001		64.4F	7.8	32500		--	--	--	--	--	0	121	--	12300	--	--	23800			29AF		
1210	5050		18.0C	7.9	36300							.00	1.98	--	346.86	--	--	4.4					
3																							
FO R 803.6 159.3 SUJSUN BAY OFF MIDDLE POINT																							
10/18/72	5001		8.2	64	F	7.7		--	--	--	--	--	--	--	2600	--	--				25AF		
1350	5001		86	18	C	13300								--	73.32	--	--	9.6					
3																							
11/16/72	5001		9.0	57	F	7.6		--	--	--	--	--	--	--	2600	--	--				25AF		
1235	5001		87	14	C	8320								--	73.32	--	--	13.4					
3																							
12/13/72	5001		11.8	45	F	7.9		--	--	--	--	--	--	--	650	--	--				23AF		
1125	5001		97	7	C	2490								--	19.33	--	--	18.6					
3																							
01/15/73	5001		11.0	46	F	7.0		--	--	--	--	0	67	--	27	--	--				40AF		
1140	5001		93	8	C	7.5 260						.00	1.10	--	.76	--	--	17.2					
3																							
02/14/73	5001		9.9	50	F	7.6		--	--	--	--	0	77	--	30	--	--				80AF		
1425	5001		87	10	C	7.6 280						.00	1.26	--	.85	--	--	17.0					
3																							
03/28/73	5001		10.4	53.6F	7.7	305		--	--	--	--	0	84	--	24	--	--				33AF		
1030	5050		96	12.0C	7.7	279						.00	1.38	--	.68	--	--	19.8					
3																							
04/25/73	5001		10.6	62.6F	8.4	1480		--	--	--	--	0	89	--	243	--	--				15AF		
1130	5050		109	17.0C	7.9	1060						.00	1.46	--	6.85	--	--	16.4					
3																							
05/30/73	5001		9.1	69.8F	8.0	6000		--	--	--	--	5.0	73	--	2070	--	--				46AF		
1615	5050		101	21.0C	8.5	6310						.17	1.20	--	58.37	--	--	12.4					
3																							
06/27/73	5001		8.6	73.4F	8.0	9200		--	--	--	--	0	86	--	2940	--	--				24AF		
1505	5050		99	23.0C	7.5	9200						.00	1.41	--	82.91	--	--	12.0					
3																							
08/22/73	5001		9.2	68.0F	7.4	8640		--	--	--	--	0	87	--	2990	--	--				45AF		
1150	5050		101	20.0C	8.0	9820						.00	1.43	--	84.32	--	--	8.6					
3																							
09/19/73	5001		8.1	66.2F	8.2	3950		--	--	--	--	0	88	--	1140	--	--				45AF		
1025	5050		87	19.0C	8.0	4090						.00	1.44	--	32.15	--	--	14.2					
3																							
FO R 804.0 203.0 SUJSUN BAY NEAR PRESTON POINT																							
10/18/72	5001		8.0	64	F	7.8		--	--	--	--	--	--	--	4100	--	--				22AF		
1330	5001		84	18	C	9070								--	115.62	--	--	7.8					
3																							
11/16/72	5001		9.0	55	F	7.7		--	--	--	--	--	--	--	3200	--	--				25AF		
1215	5001		85	13	C	9780								--	90.24	--	--	12.8					
3																							
12/13/72	5001		11.2	45	F	7.9		--	--	--	--	--	--	--	2400	--	--				18AF		
1110	5001		92	7	C	7750								--	67.68	--	--	16.8					
3																							
01/15/73	5001		11.0	46	F	7.2		--	--	--	--	0	74	--	540	--	--				40AF		
1120	5001		93	8	C	7.7 2000						.00	1.21	--	15.23	--	--	17.8					
3																							
03/15/73	5001		10.2	54	F	7.9		--	--	--	--	0	82	--	258	--	--	644			40AF		
1200	5050		94	12	C	7.5 1150						.00	1.34	--	7.28	--	--	.2					
3																							
03/28/73	5001		10.7	53.6F	7.9	690		--	--	--	--	0	85	--	155	--	--	389			33A		
1005	5050		99	12.0C	7.8	739						.00	1.39	--	4.37	--	--	18.4					
3																							
04/11/73	5001		9.4	60.8F	7.6	1750		--	--	--	--	0	95	--	494	--	--	1100			39AF		
1305	5050		95	16.0C	7.6	1960						.00	1.56	--	13.93	--	--	17.6					
3																							

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER WILLIEQUIVALENTS PER LITER PERCENT REFRACTANCE VALUE				MILLIGRAMS PER LITER					
						CA	MG	NA	K	CO3	HCO3	CO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR
FO R 804.0 203.0 SUISUN BAY NEAR PRESTON POINT																			CONTINUED
04/25/73	5001		9.0	60.8F	8.0 6300	--	--	--	--	0	95	--	2340	--	--	--	4300		26AF
1045	5050		91	16.0C	7.8 7160					.00	1.56		65.99			14.6			
		3																	
05/09/73	5001		9.2	62.6F	8.0 7640	--	--	--	--	0	95	--	2880	--	--	--	5320		46AF
1140	5050		95	17.0C	7.7 8860					.00	1.56		81.22			11.2			
		3																	
05/30/73	5001		9.3	68.0F	8.1 8900	--	--	--	--	4.0	80	--	3080	--	--	--	5540		66AF
1545	5050		102	20.0C	8.4 9580					.13	1.31		86.86			10.0			
		3																	
06/12/73	5001		8.4	69.8F	7.9 11250	--	--	--	--	0	93	--	4480	--	--	--	7420		37AF
1625	5050		94	21.0C	7.9 10200					.00	1.52		126.34			9.1			
		3																	
06/27/73	5001		8.5	71.6F	7.9 16250	--	--	--	--	0	96	--	5790	--	--	--	11200		25AF
1440	5050		96	22.0C	7.6 14500					.00	1.57		163.28			8.6			
		3																	
07/11/73	5001		9.5	71.6F	8.3 17240	--	--	--	--	0	100	--	7100	--	--	--	12200		33AF
1420	5050		108	22.0C	8.2 18300					.00	1.64		200.22			5.2			
		3																	
08/07/73	5001		10.0	68.0F	8.4 16400	--	--	--	--	0	96	--	5980	--	--	--	10900		33AF
1440	5050		109	20.0C	8.2 17500					.00	1.57		168.64			4.4			
		3																	
08/22/73	5001		8.8	68.0F	8.0 14080	--	--	--	--	0	95	--	5460	--	--	--	10100		31AF
1130	5050		96	20.0C	7.9 16200					.00	1.56		153.97			5.6			
		3																	
09/05/73	5001		8.4	64.4F	8.1 12600	--	--	--	--	0	92	--	4240	--	--	--	8440		45AF
1330	5050		88	18.0C	8.3 13400					.00	1.51		119.57			7.2			
		3																	
09/19/73	5001		7.5	66.2F	8.1 12120	--	--	--	--	0	93	--	4390	--	--	--	7470		50AF
1000	5050		80	19.0C	7.9 12700					.00	1.52		123.80			8.0			
		3																	
FO R 804.4 156.2 HONKER BAY NEAR WHEELER POINT																			
10/03/72	5001		8.7	66.2F	8.0	--	--	--	--	--	--	--	840	--	--	--			65AF
1340	5001		93	19.0C	3040								23.69			12.0			
		3																	
10/18/72	5001		7.9	64 F	7.6	--	--	--	--	0	84	--	1600	--	--	--			30AF
1410	5001		83	18 C	7.6 5700					.00	1.38		45.12			11.4			
		3																	
11/15/72	5001		9.5	55 F	7.7	--	--	--	--	0	73	--	1120	--	--	--			31AF
1055	5001		90	13 C	7.6 2860					.00	1.20		31.58			15.0			
		3																	
12/12/72	5001		11.6	43 F	7.8	--	--	--	--	0	74	--	50	--	--	--			21AF
0845	5001		93	6 C	7.7 349					.00	1.21		1.41			20.0			
		3																	
02/13/73	5001		10.0	52 F	8.0	--	--	--	--	0	72	--	11	--	--	--			110AF
1210	5001		90	11 C	7.5 178					.00	1.18		.31			15.8			
		3																	
03/15/73	5001		10.8	52 F	8.0	--	--	--	--	0	89	--	14	--	--	--			50AF
1230	5050		98	11 C	7.5 230					.00	1.46		.39			17.6			
		3																	
03/29/73	5001		10.3	53.6F	7.7 252	--	--	--	--	0	86	--	16	--	--	--			27AF
1050	5050		95	12.0C	7.8 236					.00	1.41		.45			17.4			
		3																	
04/12/73	5001		9.5	59.0F	7.6 403	--	--	--	--	0	92	--	40	--	--	--			33AF
1130	5050		94	15.0C	7.6 372					.00	1.51		1.13			18.2			
		3																	
04/26/73	5001		10.6	62.6F	8.3 2220	--	--	--	--	0	89	--	484	--	--	--			22AF
1020	5050		109	17.0C	7.8 1950					.00	1.46		13.65			15.8			
		3																	
05/10/73	5001		9.0	64.4F	8.0 2480	--	--	--	--	0	85	--	762	--	--	--			45AF
1020	5050		95	18.0C	7.7 2700					.00	1.39		21.49			12.2			
		3																	
05/31/73	5001		8.6	68.0F	7.7 2180	--	--	--	--	13	55	--	534	--	--	--			68AF
1455	5050		94	20.0C	8.9 1890					.43	.90		15.06			16.2			
		3																	
06/13/73	5001		8.2	69.8F	7.8 3300	--	--	--	--	0	85	--	839	--	--	--			75AF
1545	5050		91	21.0C	7.9 3160					.00	1.39		23.66			15.8			
		3																	
06/26/73	5001		7.8	73.4F	7.8 6700	--	--	--	--	0	84	--	1990	--	--	--			45AF
1330	5050		90	23.0C	8.0 6810					.00	1.38		56.12			13.8			
		3																	
07/11/73	5001		8.7	71.6F	8.2 9680	--	--	--	--	0	88	--	3250	--	--	--			80AF
1505	5050		99	22.0C	8.0 10300					.00	1.44		91.65			9.0			
		3																	
08/08/73	5001		9.3	68.0F	8.2 8430	--	--	--	--	0	84	--	3270	--	--	--			90AF
1350	5050		102	20.0C	8.0 9850					.00	1.38		92.21			8.0			
		3																	
08/23/73	5001		8.6	69.8F	7.7 7420	--	--	--	--	0	84	--	2640	--	--	--			100AF
1300	5050		96	21.0C	7.7 8680					.00	1.38		74.45			9.6			
		3																	
09/06/73	5001			66.2F	8.0 5830	--	--	--	--	0	83	--	1860	--	--	--			55AF
1305	5050			19.0C	8.2 5860					.00	1.36		52.45			12.6			
		3																	

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER																
						CA	MG	NA	K	CO3	HCO3	SO4	CL	VALUE NO3	B	F	TDS SUM	TH NCH	TURB SAR													
FO R 804.4 156.2 MONK RAY NEAR WHEELER POINT																				CONTINUED												
09/20/73	5001		7.9	68.0F	8.0	2220	--	--	--	--	0	86	--	659	--	--				60AF												
1050	5050		86	20.0C	7.8	2310					.00	1.41	--	18.58		--	16.0															
FO R 805.3 226.3 SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																																
10/04/72	5001		7.7	64 F	7.9		--	--	--	--	0	116	--	12600	--	--				7AF												
1225	5001		81	18 C	8.1	34400					.00	1.90	--	355.32		--	.8															
11/16/72	5001		9.1	54 F	7.6		--	--	--	--	0	103	--	9400	--	--																
0940	5001		84	12 C	7.8						.00	1.69	--	265.08		--	--															
12/13/72	5001		12.1	39 F	7.9		--	--	--	--	0	98	--	6500	--	--				28AF												
0905	5001		92	4 C	7.8	22200					.00	1.61	--	183.30		--	11.4															
02/14/73	5001		10.7	52 F	7.9		--	--	--	--	0	82	--	2000	--	--				50AF												
1135	5001		97	11 C	7.8	6500					.00	1.34	--	56.40		--	15.8															
04/11/73	5001		11.2	62.6F	7.9	18200	--	--	--	--	0	106	--	7790	--	--				26AF												
1010	5050		115	17.0C	7.4	20500					.00	1.74	--	219.68		--	--															
05/09/73	5001		10.1	60.8F	8.3	26500	--	--	--	--	0	117	--	11700	--	--				21AF												
0845	5050		102	16.0C	7.6	30700					.00	1.92	--	329.94		--	4.0															
06/12/73	5001		8.1	69.8F	7.9	27800	--	--	--	--	0	112	--	11400	--	--				60AF												
1350	5050		90	21.0C	7.7	31400					.00	1.84	--	321.48		--	1.2															
07/10/73	5001		7.8	69.8F	8.0	36000	--	--	--	--	0	124	--	12600	--	--				78AF												
1325	5050		87	21.0C	7.8	37900					.00	2.03	--	355.32		--	5.2															
08/07/73	5001		8.0	68.0F	7.7	33500	--	--	--	--	0	129	--	13700	--	--				20AF												
1200	5050		87	20.0C	7.7	39500					.00	2.11	--	386.34		--	5.0															
09/05/73	5001		7.5	64.4F	7.8	34700	--	--	--	--	0	123	--	12900	--	--				65AF												
1050	5050		79	18.0C	7.8	38400					.00	2.02	--	363.78		--	4.8															
FO R 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																																
10/03/72	5001		8.7	65.3F	8.0		--	--	--	--	--	--	--	2400	--	--				50AF												
1300	5001		92	18.5C		7940							--	67.68		--	6.6															
10/18/72	5001		8.0	64 F	7.5		--	--	--	--	0	90	--	2800	--	--				27AF												
1215	5050		84	18 C	7.3	10800					.00	1.48	--	78.96		--	9.2															
11/15/72	5001		9.2	57 F	7.1		--	--	--	--	0	79	--	1900	--	--				45AF												
1010	5001		89	14 C	7.6	6780					.00	1.29	--	53.58		--	13.4															
12/12/72	5001		11.0	43 F	7.1		--	--	--	--	0	77	--	700	--	--				38AF												
0800	5001		88	6 C	7.7	2840					.00	1.26	--	19.74		--	18.0															
02/13/73	5001		10.4	52 F	7.4		--	--	--	--	0	76	--	23	--	--				100AF												
1130	5001		94	11 C	7.8	180					.00	1.25	--	.65		--	15.8															
03/15/73	5001		10.7	52 F	7.5		--	--	--	--	0	83	--	17	--	--				50AF												
1005	5050		97	11 C	7.6	222					.00	1.36	--	.48		--	17.4															
03/29/73	5001		10.1	53.6F	7.7	320	--	--	--	--	0	86	--	29	--	--				55AF												
1000	5050		93	12.0C	7.6	292					.00	1.41	--	.82		--	17.4															
04/12/73	5001		9.4	60.8F	7.7	1210	--	--	--	--	0	93	--	240	--	--				55AF												
1040	5050		95	16.0C	7.6	1120					.00	1.52	--	6.77		--	17.8															
04/26/73	5001		9.9	62.6F	8.0	4920	--	--	--	--	0	95	--	1830	--	--				26AF												
0940	5050		102	17.0C	7.7	5450					.00	1.56	--	51.61		--	14.6															
05/10/73	5001		8.9	62.6F	8.0	5400	--	--	--	--	0	89	--	1710	--	--				50AF												
0935	5050		92	17.0C	7.7	5820					.00	1.46	--	48.22		--	11.4															
05/31/73	5001		8.8	68.0F	7.9	7600	--	--	--	--	0	82	--	2560	--	--				76AF												
1415	5050		96	20.0C	7.7	8130					.00	1.34	--	72.19		--	10.4															
06/13/73	5001		8.1	68.0F	7.8	7330	--	--	--	--	0	90	--	2310	--	--				37AF												
1345	5050		88	20.0C	7.9	8000					.00	1.48	--	65.14		--	11.5															
06/27/73	5001		9.3	73.4F	7.6	12600	--	--	--	--	0	83	--	4480	--	--				37AF												
1330	5050		108	23.0C	7.5	13100					.00	1.36	--	126.34		--	9.6															
08/08/73	5001		9.4	66.2F	8.0	13600	--	--	--	--	0	92	--	5050	--	--				80AF												
1145	5050		101	19.0C	8.0	15200					.00	1.51	--	142.41		--	4.2															
08/22/73	5001		9.1	66.2F	8.0	11360	--	--	--	--	0	89	--	3890	--	--				39AF												
1000	5050		97	19.0C	8.0	12600					.00	1.46	--	109.70		--	6.6															

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					TURB SAR
					LABORATORY PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH		
																				PERCENT	
E0 R 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH CONTINUED																					
09/06/73	5001		6.8	64.4F	8.0	9040	--	--	--	--	0	86	--	2800	--	--	--	5520		45AF	
1050	5050	3	71	18.0C	8.0	9340					.00	1.41		78.96			9.6				
09/19/73	5001		8.3	66.2F	7.9	6348	--	--	--	--	0	89	--	2050	--	--	--	3880		50AF	
0850	5050	3	89	19.0C	7.9	7090					.00	1.46		57.81			11.0				
E0 S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																					
10/13/72	5001		5.6	64 F	7.0		--	--	--	--	--	--	--	2000	--	--	--			18AF	
0850	5001	3	59	18 C		6940								56.40			8.2				
11/14/72	5001		7.1	52 F	7.1	5250	--	--	--	--	--	--	--	1200	--	--	--			34AF	
0940	5001	3	64	11 C		4350								33.84			10.4				
12/14/72	5001		11.0	39 F	6.8		--	--	--	--	--	--	--	630	--	--	--			50AF	
0935	5001	3	84	4 C		2490								17.77			18.2				
01/29/73	5001		9.3	46 F	7.0		--	--	--	--	--	--	--	220	--	--	--			80AF	
1010	5001	3	78	8 C		998								6.20			14.6				
02/26/73	5001		7.9	55 F	7.4		--	--	--	--	--	--	--	210	--	--	--			70AF	
1045	5001	3	75	13 C		1020								5.92			18.0				
03/27/73	5001		8.2	55 F	7.2	1780	--	--	--	--	0	114	--	418	--	--	--			40AF	
0920	5050	3	78	13 C	7.3	1810					.00	1.87		11.79			16.4				
04/26/73	5001		8.1	66 F	7.7	1290	--	--	--	--	0	100	--	310	--	--	--			75AF	
0905	5050	3	87	19 C	7.8	1330					.00	1.64		8.74			15.6				
05/24/73	5001		8.3	66 F	7.9	5800	--	--	--	--	0	97	--	2130	--	--	--			42AF	
0920	5050	3	89	19 C	7.8	6530					.00	1.59		60.07			7.4				
06/25/73	5001		6.9	75 F	7.5	6600	--	--	--	--	0	96	--	2140	--	--	--			44AF	
1125	5050	3	81	24 C	7.8	6730					.00	1.57		60.35			8.0				
07/23/73	5001		7.8	66 F	7.9	12980	--	--	--	--	0	100	--	4430	--	--	--			33AF	
0940	5050	3	84	19 C	7.9	13600					.00	1.64		124.93			1.4				
08/20/73	5001		4.0	68.0F	6.8	11600	--	--	--	--	0	91	--	4300	--	--	--			55AF	
0845	5050	3	44	20.0C	7.8	13200					.00	1.49		121.26			2.4				
09/18/73	5001		7.3	66 F	7.9	9600	--	--	--	--	0	96	--	3060	--	--	--			62AF	
0940	5050	3	78	19 C	7.9	9730					.00	1.57		86.29			5.6				
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																					
10/13/72	5001		6.6	66 F	7.5		--	--	--	--	--	--	--	2300	--	--	--			27AF	
1125	5050	2	71	19 C		7630								64.86			4.8				
11/14/72	5001		8.1	54 F	7.4	8020	--	--	--	--	--	--	--	2150	--	--	--			70AF	
1330	5050	3	75	12 C		7270								60.63			9.6				
12/14/72	5001		9.2	39 F	7.0		--	--	--	--	--	--	--	1180	--	--	--			45AF	
1245	5001	2	70	4 C		4180								33.28			15.2				
02/13/73	5001		9.1	52 F	6.8		--	--	--	--	0	102	--	200	--	--	--			65AF	
1040	5001	3	82	11 C	7.7	945					.00	1.67		5.64			15.2				
02/26/73	5001		7.4	55 F	7.5		--	--	--	--	--	--	--	120	--	--	--			80AF	
1415	5001	3	70	13 C		1090								3.38			16.8				
03/27/73	5001		8.4	57 F	7.3	1720	--	--	--	--	0	162	--	384	--	--	--	935		32AF	
1305	5050	3	81	14 C	7.4	1750					.00	2.66		10.83			16.2				
04/12/73	5001		8.0	62.6F	7.4	1330	--	--	--	--	0	114	--	297	--	--	--	763		75AF	
0950	5050	3	82	17.0C	7.7	1310					.00	1.87		8.38			15.4				
04/26/73	5001		8.8	68 F	8.1	1660	--	--	--	--	0	142	--	382	--	--	--	957		60AF	
1310	5050	3	96	20 C	7.8	1690					.00	2.33		10.77			13.2				
05/10/73	5001		7.4	64.4F	7.7	3700	--	--	--	--	0	114	--	1170	--	--	--	2320		70AF	
0845	5050	3	78	18.0C	7.7	4050					.00	1.87		32.99			10.2				
05/24/73	5001		8.8	66 F	8.3	3880	--	--	--	--	0	148	--	1360	--	--	--	2400		60AF	
1340	5050	3	94	19 C	8.0	4250					.00	2.43		38.35			2.4				
06/13/73	5001		7.4	69.8F	7.7	4700	--	--	--	--	0	122	--	1540	--	--	--	2890		75AF	
1230	5050	3	82	21.0C	7.9	4540					.00	2.00		43.43			5.8				
06/25/73	5001		8.8	75 F	7.9	5900	--	--	--	--	0	127	--	1780	--	--	--	3170		38AF	
1455	5050	3	104	24 C	7.9	5380					.00	2.08		50.20			4.2				

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER					MILLIGRAMS PER LITER				
					PH	EC	PERCENT REACTANCE VALUE					PERCENT REACTANCE VALUE					B	F	TDS SUM	TH NCH	TURB SAR					
							CA	MG	NA	K	CO3	HCO3	PO4	CL	NO3											
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND CONTINUED																										
07/23/73 1345	5001 5050		10.3 113	68 20	F C	8.1 8.1	9259 10100	--	--	--	--	0 .00	138 2.26	-- 88.83	3150	--	--	--	--	5870		27AF				
		3																	2.6							
08/08/73 1030	5001 5050		8.3 91	68.0F 20.0C		7.4 8.1	10700 12600	--	--	--	--	0 .00	110 1.80	-- 126.90	4500	--	--	--	--	8000		60AF				
		3																	.6							
08/08/73 1031	5001 5001			68.0F 20.0C		7.5	11000	--	--	--	--	--	--	--	--	--	--	--	--		70AF					
		30																	--							
08/20/73 1300	5001 5050		7.4 81	68.0F 20.0C		7.8 8.1	10500 11300	--	--	--	--	0 .00	128 2.10	-- 100.11	3550	--	--	--	--	6660		32AF				
		3																	.6							
09/06/73 1140	5001 5050		6.9 74	66.2F 19.0C		7.7 8.2	11200 11700	--	--	--	--	0 .00	101 1.66	-- 112.80	4000	--	--	--	--	7080		30AF				
		3																	1.8							
09/06/73 1141	5001 5001			68.0F 20.0C		7.7	11150	--	--	--	--	--	--	--	--	--	--	--	--		40AF					
		28																	--							
09/18/73 1235	5001 5050		8.0 87	68 20	F C	8.1 8.0	10000 10200	--	--	--	--	0 .00	119 1.95	-- 97.57	3460	--	--	--	--		33AF					
		3																	2.0							
E0 S 811.0 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																										
10/13/72 0955	5001 5001		6.0 63	64 18	F C	7.3	7460	--	--	--	--	--	--	-- 59.22	2100	--	--	--	--		22AF					
		3																	5.6							
11/14/72 1230	5001 5001		8.5 77	52 11	F C	7.1	800 466	--	--	--	--	--	--	-- 2.34	83	--	--	--	--		950AF					
		3																	16.4							
12/14/72 1120	5001 5001		9.8 74	39 4	F C	7.0	4080	--	--	--	--	--	--	-- 32.43	1150	--	--	--	--		40AF					
		3																	16.2							
01/29/73 1150	5001 5001		8.5 72	46 8	F C		1400	--	--	--	--	--	--	-- 8.18	290	--	--	--	--		60AF					
		3																	14.4							
02/26/73 1300	5001 5001		9.0 85	55 13	F C	7.3	949	--	--	--	--	--	--	-- 3.95	140	--	--	--	--		21AF					
		3																	28.0							
03/27/73 1135	5001 5050		8.9 88	59 15	F C	7.3 7.4	1320 1340	--	--	--	--	0 .00	171 2.80	-- 6.82	242	--	--	--	--		30AF					
		3																	26.4							
04/26/73 1155	5001 5050		8.9 101	72 22	F C	8.1 7.8	1520 1550	--	--	--	--	0 .00	148 2.43	-- 9.76	346	--	--	--	--		50AF					
		3																	14.0							
05/24/73 1140	5001 5050		7.6 83	68 20	F C	7.8 8.0	3900 4290	--	--	--	--	0 .00	144 2.36	-- 37.51	1330	--	--	--	--		60AF					
		3																	11.6							
06/25/73 1320	5001 5050		7.9 91	73 23	F C	7.6 7.8	6500 6300	--	--	--	--	0 .00	108 1.77	-- 60.63	2150	--	--	--	--		37AF					
		3																	6.0							
06/25/73 1545	5001 5050		8.1 92	72 22	F C	8.0 8.2	4600 4330	--	--	--	--	0 .00	149 2.44	-- 35.81	1270	--	--	--	--		34AF					
		1																	10.0							
07/23/73 1215	5001 5050		8.2 90	68 20	F C	7.7 8.0	8928 10200	--	--	--	--	0 .00	129 2.11	-- 84.32	2990	--	--	--	--		32AF					
		3																	4.8							
08/20/73 1130	5001 5050		6.7 72	66.2F 19.0C		7.3 7.7	10300 12800	--	--	--	--	0 .00	95 1.56	-- 115.90	4110	--	--	--	--		40AF					
		3																	1.6							
09/18/73 1125	5001 5050			64 18	F C	7.6 7.7	10000 9730	--	--	--	--	0 .00	100 1.64	-- 93.34	3310	--	--	--	--		30AF					
		3																	4.2							
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																										
10/13/72 1230	5001 5001		6.9 72	64 18	F C	7.5	7140	--	--	--	--	--	--	-- 59.22	2100	--	--	--	--		17AF					
		3																	5.4							
11/14/72 1435	5001 5001		8.4 79	55 13	F C	7.4	7270	--	--	--	--	--	--	-- 59.22	2100	--	--	--	--		25AF					
		3																	9.8							
12/14/72 1330	5001 5001		10.2 78	39 4	F C	6.7	4490	--	--	--	--	--	--	-- 36.66	1300	--	--	--	--		30AF					
		3																	14.6							
01/29/73 1335	5001 5001		9.8 83	46 8	F C		1070	--	--	--	--	--	--	-- 7.33	260	--	--	--	--		75AF					
		3																	14.8							
02/26/73 1520	5001 5001		9.4 89	55 13	F C	7.4	632	--	--	--	--	--	--	-- 2.82	100	--	--	--	--		55AF					
		3																	18.2							
03/27/73 1405	5001 5050		9.5 90	55 13	F C	7.1 7.3	950 962	--	--	--	--	0 .00	95 1.56	-- 5.61	199	--	--	--	--		27AF					
		3																	16.2							

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER					
					LABORATORY PH	EC	CA	MG	NA	K	CO3	PERCENT HCO3	REFRACTANCE SO4	CL	VALUE NO3	B	F SIO2	TDS SUM	TH NCH	TURB SAR

E0 5 811.2			158.5	MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD												CONTINUED				
04/26/73	5001		8.9	68	F	8.0	1660	--	--	--	--	0	123	--	383	--	--	--	55AF	
1405	5050	3	97	20	C	7.6	1690					.00	2.02		10.80		11.8			
05/24/73	5001		7.8	66	F	7.8	3320	--	--	--	--	0	104	--	1080	--	--	--	40AF	
1440	5050	3	84	19	C	7.8	3680					.00	1.70		30.46		7.2			
06/25/73	5001		7.4	73	F	7.8	5600	--	--	--	--	0	105	--	1680	--	--	--	29AF	
1543	5050	3	86	23	C	7.9	5160					.00	1.72		47.38		4.8			
07/23/73	5001		9.8	68	F	8.0	8109	--	--	--	--	0	106	--	2690	--	--	--	5030	22AF
1430	5050	3	107	20	C	8.1	8870					.00	1.74		75.86		2.2			
08/20/73	5001		7.4	71.6F	7.8	9800	--	--	--	--	0	110	--	3530	--	--	--	--	24AF	
1350	5050	3	84	22.0C	7.9	10300					.00	1.80		99.55		2.2				
08/20/73	5001					10000	--	--	--	--	--	--	--	--	--	--	--	--	60AF	
1355	5001	10																		
09/18/73	5001		7.2	68	F	8.0	10700	--	--	--	--	0	101	--	3180	--	--	--	30AF	
1315	5050	3	79	20	C	8.2	10400					.00	1.66		89.68		2.4			
E0 5 811.5			207.2	CORDELIA SLOUGH AT UPPER END																
03/27/73	5001		10.0	57	F	7.7	575	--	--	--	--	0	170	--	58	--	--	--	32AF	
1025	5050	3	97	14	C	7.8	597					.00	2.79		1.64		30.0			
04/26/73	5001		17.6	70	F	9.1	1070	--	--	--	--	0	201	--	201	--	--	--	18AF	
1055	5050	1	196	21	C	8.2	1130					.00	3.29		5.67		24.8			
05/24/73	5001		7.5	68	F	8.2	4750	--	--	--	--	4.0	163	--	187	--	--	--	75AF	
1020	5050	2	82	20	C	8.5	4580					.13	2.67		5.27		19.2			
06/25/73	5001		7.0	72	F	7.8	3100	--	--	--	--	0	180	--	832	--	--	--	65AF	
1210	5050	3	79	22	C	8.1	2870					.00	2.95		23.46		14.2			
07/23/73	5001		7.5	68	F	8.1	593	--	--	--	--	5.0	173	--	84	--	--	--	60AF	
1100	5050	3	82	20	C	8.5	669					.17	2.84		2.37		13.2			
08/20/73	5001		6.3	68.0F	7.6	6200	--	--	--	--	0	168	--	2100	--	--	--	--	65AF	
1015	5050	3	69	20.0C	8.0	7060					.00	2.75		59.22		8.4				
09/18/73	5001		6.4	66	F	8.2	550	--	--	--	--	3.0	170	--	57	--	--	--	84AF	
1030	5050	2	69	19	C	8.5	527					.10	2.79		1.61		16.0			
E0 5 813.6			201.2	HILL SLOUGH AT GRIZZLY ISLAND ROAD																
10/13/72	5001		5.0	64	F	7.5		--	--	--	--	--	--	--	2900	--	--	--	31AF	
1300	5001	3	53	18	C		8890								81.78		5.0			
11/14/72	5001		7.1	52	F	7.4		--	--	--	--	--	--	--	250	--	--	--	120AF	
1515	5001	3	64	11	C		834								7.05		9.0			
12/14/72	5001		9.5	37	F	6.7		--	--	--	--	--	--	--	1280	--	--	--	40AF	
1410	5001	3	70	3	C		4590								36.10		16.0			
01/29/73	5001		8.1	46	F			--	--	--	--	--	--	--	240	--	--	--	55AF	
1415	5001	3	68	8	C		1160								6.77		11.2			
02/26/73	5001		7.0	55.4F	7.5			--	--	--	--	--	--	--	400	--	--	--	32AF	
1545	5001	3	66	13.0C			1870								11.28		12.4			
03/27/73	5001		8.5	59	F	7.5	990	--	--	--	--	0	194	--	177	--	--	--	45AF	
1440	5050	3	84	15	C	7.7	1010					.00	3.18		4.99		13.2			
04/26/73	5001		9.1	70	F	8.3	2540	--	--	--	--	0	263	--	597	--	--	--	60AF	
1453	5050	3	101	21	C	8.0	2570					.00	4.31		16.84		9.8			
05/24/73	5001		8.1	66	F	8.3	3100	--	--	--	--	0	248	--	841	--	--	--	120AF	
1520	5050	3	87	19	C	8.0	2890					.00	4.06		23.72		--			
06/25/73	5001		9.4	75	F	8.2	3700	--	--	--	--	0	231	--	944	--	--	--	65AF	
1620	5050	3	111	24	C	8.2	3350					.00	3.79		26.62		3.6			
07/23/73	5001		7.4	68	F	7.9	3765	--	--	--	--	0	212	--	1110	--	--	--	55AF	
1500	5050	3	81	20	C	8.2	4180					.00	3.47		31.30		8.2			
08/20/73	5001		8.7	75.2F	8.7	11000	--	--	--	--	0	208	--	2370	--	--	--	--	55AF	
1440	5050	3	102	24.0C	7.9	7350					.00	3.41		66.83		3.4				
09/18/73	5001		7.9	66	F	8.3	8700	--	--	--	--	0	190	--	2660	--	--	2.2	39AF	
1345	5050	3	85	19	C	8.3	8290					.00	3.11		75.01		--			

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD		MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					LABORATORY PH	EC	CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR			
E3 1250.00 NAPA RIVER NEAR NAPA																							
10/12/72 1440	5050 5050	3.01	8.9 93	64 18	F C	7.7 8.1	380 441	28 1.40 32	24 2.00 45	24 1.04 23	--	0 .00	208 3.41	--	21 .59	--	-- --			170 0	5A 0.8		
11/15/72 1145	5050 5050	5.02	10.0 94	55 13	F C	7.2 7.7	200 207	14 .70 35	9.2 .76 38	12 .52 26	--	0 .00	75 1.23	--	10 .28	--	-- --			73 12	45A 0.6		
12/21/72 1100	5050 5050	4.72	10.1 94	54 12	F C	7.3 7.7	220 221	16 .80 35	11 .94 41	13 .57 25	--	0 .00	85 1.39	--	12 .34	--	-- --			87 18	20A 0.6		
02/16/73 1345	5050 5050	6.47	10.9 99	52 11	F C	7.3 7.7	185 197	13 .65 33	11 .91 47	8.9 .39 20	--	0 .00	85 1.39	--	8.5 .24	--	-- --			78 9	30A 0.4		
04/11/73 1115	5050 5050	3.61	10.2 107	64 18	F C	7.6 7.7	270 304	20 1.00 32	18 1.48 47	15 .65 21	--	0 .00	138 2.26	--	9.3 .26	--	-- --			124 11	3A 0.6		
06/14/73 1230	5050 5050	2.87	15.7 174	69 21	F C	8.2 8.4	320 424	28 1.40 33	24 2.00 47	20 .87 20	--	2.0 .07	187 3.06	--	15 .42	--	-- --	197	170 14	4A 0.7			
08/17/73 1200	5050 5050	2.64	11.1 124	70 21	F C	7.9 8.4	360 431	28 1.40 31	26 2.14 47	23 1.00 22	1.6 .04 1	4.0 .13 3	202 3.31 73	30 .62 14	17 .48 11	1.4 .02	.40 --	-- --	255 231	177 5	0A 0.8		
E3 2100.51 GREEN VALLEY CREEK AT CORDELIA																							
10/13/72 0930	5001 5001		7.7 76	59 15	F C	8.1		--	--	--	--	--	--	--	31 .87	--	-- 16.8				4AF		
		2																					
11/14/72 1115	5001 5001		9.6 91	55 13	F C	7.6		--	--	--	--	--	--	--	13 .37	--	-- 34.8				65AF		
		3																					
12/14/72 1045	5001 5001		13.1 97	37 3	F C	7.7		--	--	--	--	--	--	--	19 .54	--	-- 32.4				4AF		
		2																					
01/29/73 1110	5001 5001		11.1 96	48 9	F C			--	--	--	--	--	--	--	20 .56	--	-- 41.4				28AF		
		3																					
02/26/73 1200	5001 5001		9.9 94	55 13	F C	7.5		--	--	--	--	--	--	--	24 .68	--	-- 35.6				140AF		
		3																					
03/27/73 1105	5001		12.2 118	57 14	F C	7.7		--	--	--	--	--	--	--	--	--	-- --						
		1																					
05/24/73 1105	5001		10.8 116	66 19	F C	8.7	330	--	--	--	--	--	--	--	--	--	-- --						
		1																					
06/25/73 1250	5001 5001		10.5 119	72 22	F C	8.7	353	--	--	--	--	11 .37	157 2.57	--	--	--	-- --						
		1																					
07/23/73 1140	5001		11.2 120	66 19	F C	8.6	305	--	--	--	--	--	--	--	--	--	-- --						
		1																					
F4 L 748.1 215.6 LAKE MERRITT AT BOATHOUSE DOCK																							
12/11/72 1345	5050 5050		12.1 99	44 7	F C	8.9 7.1	13000 13300	87 4.34 3	286 23.52 17	2500 108.75 79	60 1.53 1	0 .00	110 1.80 1	598 12.45 9	4460 125.77 90	.8 .01	1.20 --	-- --	7940 8047	1400 1304	11A 29.1		
03/20/73 1150	5050 5050		9.3 89	56 13	F C	9.0 7.6	6000 6480	62 3.09 5	124 10.20 17	1040 45.24 76	31 .79 1	0 .00	122 2.00 3	268 5.58 9	1860 52.45 87	--	.50 --	-- --	3710 3445	666 565	1A 17.5		
06/18/73 1230	5050 5050		10.0 113	71 22	F C	8.5 7.5	37000 41200	299 14.92 3	1011 83.14 19	7580 329.73 76	200 5.12 1	0 .00	133 2.18 1	2080 43.31 10	13800 389.16 90	--	.30 --	-- --	28000 25036	4910 4798	0A 47.1		
09/13/73 1020	5050 5050		6.8 74	68 20	F C	8.5 7.5	42000 45200	331 16.52 3	1130 92.93 18	9240 401.94 78	280 7.16 1	0 .00	134 2.20 9	2240 46.64 9	16800 473.76 91	--	4.00 --	-- --	31600 30091	5470 5367	2A 54.3		
F5 1423.01 ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE																							
11/15/72 1105	5050 5050		10.5 100	54.0F 12.2C	8.7 7.5	360 372	32 1.60 41	19 1.56 40	15 .65 17	1.8 .05 1	0 .00	148 2.43 67	41 .85 23	8.9 .25 7	6.0 .10 3	.40 --	-- --	226 197	160 37	37A 0.5			
03/27/73 1345	5050 5050		10.9 111	60 16	F C	8.7	450 466	--	--	--	--	--	--	--	--	--	-- --			212	0A		
04/06/73 1630	5050 5050			56 13	F C	8.9	500 531	--	--	--	--	--	--	--	--	--	-- --			252	0A		
04/13/73 1330	5050 5050		10.9 111	60.0F 15.5C	8.4	540 564	--	--	--	--	--	--	--	--	--	-- --			245	0A			
04/18/73 1100	5050 5050		11.2 112	58.0F 14.4C	8.9 8.0	580 582	53 2.64 42	33 2.71 43	20 .87 14	1.4 .04 1	0 .00	278 4.56 73	62 1.29 21	13 .37 6	.5 .01	.20 --	-- --	305 320	269 40	1A 0.5			
04/27/73 1620	5050 5050		8.5 101	74.0F 23.3C	8.5	575 589	--	--	--	--	--	--	--	--	--	-- --			264	0A			

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC		MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER										MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	PERCENT REACTANCE VALUE	B	F	TDS SUM	TH NCH	TURB SAR		
.....																					
E5 1423.01		ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE															CONTINUED				
05/04/73 1445	5050 5050		10.3 110	64.0F 17.8C	8.8	600 613	--	--	--	--	--	--	--	--	--	--	--		274	0A	
05/09/73 1135	5050 5050		11.5 134	72.0F 22.2C	8.6	550 606	--	--	--	--	--	--	--	--	--	--	--		263	0A	
05/16/73 1015	5050 5050		14.0 160	70 F 21 C	8.7 8.0	580 616	47 2.35 37	35 2.88 46	24 1.04 16	1.8 .05 1	0 .00	277 4.54 70	72 1.50 23	15 .42 6	2.4 .04 1	.30 --	-- --	308 334	263 35	1A 0.6	
F8 2100.00		NAVARRO RIVER NEAR NAVARRO																			
11/16/72 0900	5050 5050	4.97 1060	10.2 91	50.9F 10.5C	7.4 7.5	155 163	--	--	7.9 .34 21	--	0 .00	77 1.26	--	5.1 .14	--	.10 --	--		65	230A 0.4	
01/19/73 0900	5050 5050	18.88 12000	10.9 94	48.2F 9.0C	7.2	110	--	--	--	--	--	--	--	--	--	--	--		340AF		
03/08/73 0840	5050 5050	6.11 1650	10.3 89	48.2F 9.0C	7.2	146	--	--	--	--	--	--	--	--	--	--	--		55AF		
05/24/73 0725	5050 5050	1.72 61	9.4 95	60.8F 16.0C	7.3	254	--	--	--	--	--	--	--	--	--	--	--		0AF		
07/12/73 0750	5050 5050	1.45 16	8.2 83	60.8F 16.0C	7.3	266	--	--	--	--	--	--	--	--	--	--	--		1AF		
09/14/73 0815	5050 5050	1.39 9.0	8.8 88	59.9F 15.5C	7.2 7.9	228 264	--	--	13 .57 21	--	0 .00	141 2.31	--	9.8 .28	--	.20 --	--		110	0A 0.5	
F8 2720.00		RIG RIVER NEAR MENOOCINO																			
11/15/72 1545	5050 5050	8.27	10.1 90	50.9F 10.5C	7.2 7.8	161 177	--	--	9.4 .41 24	--	0 .00	88 1.44	--	5.1 .14	--	.20 --	--		66	21A 0.5	
01/18/73 1630	5050 5050		10.3 91	50.0F 10.0C	7.0	80	--	--	--	--	--	--	--	--	--	--	--		325AF		
03/07/73 1515	5050 5050		10.0 86	48.2F 9.0C	7.2 7.7	121 122	--	--	7.2 .31 26	--	0 .00	59 .97	--	5.9 .17	--	.00 --	--		45	18A 0.5	
05/24/73 0810	5050 5050		8.6 87	60.8F 16.0C	7.3	194	--	--	--	--	--	--	--	--	--	--	--		0AF		
07/11/73 1415	5050 5050	6.76 20	9.4 103	68.0F 20.0C	7.4	207	--	--	--	--	--	--	--	--	--	--	--		1AF		
09/13/73 1505	5050 5050		10.5 106	60.8F 16.0C	7.2 7.7	174 203	--	--	12 .52 25	--	0 .00	106 1.74	--	8.6 .24	--	.40 --	--		78	0A 0.6	
F8 3100.00		NOYO RIVER NEAR FORT BRAGG																			
11/15/72 1445	5050 5050		10.4 92	50.0F 10.0C	7.2 7.4	134 141	--	--	10 .44 31	--	0 .00	65 1.07	--	7.9 .22	--	.10 --	--		48	21A 0.6	
01/18/73 1530	5050 5050		10.8 98	51.8F 11.0C	7.0	78	--	--	--	--	--	--	--	--	--	--	--		182AF		
03/07/73 1415	5050 5050		10.6 91	48.2F 9.0C	7.2	105	--	--	--	--	--	--	--	--	--	--	--		11AF		
05/23/73 1010	5050 5050		9.7 96	59.0F 15.0C	7.5	127	--	--	--	--	--	--	--	--	--	--	--		1AF		
07/11/73 1255	5050 5050		10.4 111	66.2F 19.0C	7.4	164	--	--	--	--	--	--	--	--	--	--	--		1AF		
09/13/73 1215	5050 5050		10.2 99	57.2F 14.0C	7.1 7.6	141 150	--	--	9.7 .42 29	--	0 .00	68 1.11	--	20 .56	--	.10 --	--		51	0A 0.6	
F9 1100.00		RUSSIAN RIVER NEAR GUERNEVILLE																			
10/12/72 1200	5050	5.55	7.8 81	63 F 17 C	7.3	220	--	--	--	--	--	--	--	--	--	--	--				
11/15/72 1430	5050 5050	12.31	8.0 73	53 F 12 C	7.2 7.7	175 186	15 .75 42	7.9 .65 37	8.6 .37 21	--	0 .00	77 1.26	--	7.8 .22	--	--	--		70	84A 0.4	
12/21/72 1430	5050	11.78	9.5 87	53 F 12 C	7.2	182	--	--	--	--	--	--	--	--	--	--	--				
01/18/73 1130	5050 5050	33.10	10.4 92	50 F 10 C	7.3 7.3	99 107	8.8 .44 39	6.1 .50 45	4.1 .18 16	--	0 .00	51 .84	--	5.4 .15	--	--	--		47	750A 0.3	

TABLE D-2 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O DEPTH	DO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
							CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	PERCENT	REFRACTANCE	VALUE	B	F	TDS SUM	TH NCH	TURB SAF			
.																										
F9		1100.00	RUSSIAN RIVER NEAR GUERNEVILLE										CONTINUED													
02/16/73 1030	5050	15.72	10.6 92	49 9	F C	7.3	170	--	--	--	--	--	--	--	--	--	--	--	--							
03/14/73 1130	5050 5050	10.13	10.7 95	50 10	F C	7.3 8.0	218 236	18 .90 37	14 1.18 48	8.4 .37 15	--	0 .00	121 1.98	--	7.0 .20	--	--	--	--	104 5	244 0.4					
04/11/73 1330	5050	7.27	10.3 108	64 18	F C	7.6	275	--	--	--	--	--	--	--	--	--	--	--	--							
05/10/73 1300	5050	5.69	10.6 116	68 20	F C	7.9	260	--	--	--	--	--	--	--	--	--	--	--	--							
06/14/73 0945	5050		10.2 113	69 21	F C	7.8	275	--	--	--	--	--	--	--	--	--	--	--	--							
07/12/73 1230	5050		9.5 113	76 24	F C	8.2	240	--	--	--	--	--	--	--	--	--	--	--	--							
08/17/73 0900	5050 5050	4.74	8.0 88	69 21	F C	7.8 8.1	235 258	24 1.20 44	13 1.07 39	9.4 .41 15	1.2 .03 1	0 .00	138 2.26 82	12 .25 9	7.6 .21 8	1.4 .02 1	.30 --	--	146 137	113 1	24 0.4					
09/12/73 1030	5050 5050	4.80	8.2 91	69 21	F C	7.8 8.1	210 266	23 1.15 40	14 1.19 42	12 .52 18	--	0 .00	143 2.34	--	7.4 .21	--	.40 --	--	143	117 0	24 0.5					

TABLE D-3

MINOR ELEMENT ANALYSIS OF SURFACE WATER

Sampler and Lab Agency Codes

- 5001 - U. S. Bureau of Reclamation
- 5006 - McClellan Air Force Base Laboratory
- 5050 - Department of Water Resources

Abbreviations

- TIME - Pacific Standard Time on a 24-hour clock
- DISCH - Instantaneous discharge in cubic feet per second
- EC - Electrical conductance in micromhos at 25° Celsius
- TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)
- PH - Measure of acidity (<7) or alkalinity (>7) of water
- CHROM (ALL) - All chromium
- CHROM (HEX) - Hexavalent chromium
- D - Dissolved
- T - Total

TABLE D-3 (CONTINUED)
MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS IN MILLIGRAMS PER LITER		CHROM (ALL) CHROM (HEX)	COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC
						BARIUM CADMIUM						
D1 1075.30 PAJARO RIVER AT THURWACHTER ROAD												
10/25/72	S050			24.5C		--	--		--	0.00	D	0.0 T --
	S050			8.4	0.00 D	0.00 D	--		--	--	--	--
D2 1006.50 OLD SALINAS RIVER ABOVE TEMBLADERO SLOUGH												
10/25/72	S050					--	--		--	0.00	D	0.0 T --
	S050			8.4	0.00 D	0.00 D	--		--	--	--	--
D2 1020.70 SALINAS RECLAMATION CANAL AT AIRPORT WAY												
10/25/72	S050			14.5C		--	--		--	0.00	D	0.0 T --
0730	S050		1120	7.2	0.00 D	0.00 D	--		--	--	--	--
D2 1030.30 BLANCO DRAIN AT PUMP LIFT												
10/25/72	S050					--	--		--	0.00	D	0.0 T --
0955	S050			8.2	0.00 D	0.00 D	--		--	--	--	--
D2 1325.10 SALINAS RIVER NEAR GONZALES												
10/25/72	S050			16.5C		--	--		--	0.00	D	0.0 T --
0845	S050				0.00 D	0.00 D	--		--	--	--	--
E0 B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT												
11/16/72	S001			14 C		--	--		--	--	--	--
1010	S006	3		7.8	--	--	--	0.0 D	0.0 D	--	--	--
05/09/73	S001			15.0C		--	0.00 D	0.0 D	0.0 D	0.010 D	--	--
0925	S006	3	27500	8.0	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
E0 B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES												
05/09/73	S001			17.0C		--	0.00 D	0.0 D	0.0 D	0.00 D	--	--
1110	S006	3	12350	7.9	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
E0 B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND												
11/15/72	S001			13 C		--	--		--	--	--	--
1110	S006	3		7.7	--	--	--	0.0 D	0.0 D	--	--	--
01/15/73	S001			8 C		--	0.00 D	0.012 D	0.00 D	0.00 D	--	--
1200	S006	3		7.0	--	0.00 D	--	0.110 D	0.0 D	0.0 D	--	0.010 D
05/09/73	S001			18.0C		--	0.00 D	0.0 D	0.0 D	0.00 D	--	--
1225	S006	3	1930	8.1	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
E0 B 803.5 217.0 SAN PABLO BAY NEAR RODEO												
05/09/73	S001			16.0C		--	0.00 D	0.0 D	0.0 D	0.00 D	--	--
1010	S006	3	20700	8.0	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT												
11/16/72	S001			13 C		--	--		--	--	--	--
1215	S006	3		7.7	--	--	--	0.0 D	0.0 D	--	--	--
01/15/73	S001			8 C		--	0.00 D	0.020 D	0.00 D	0.00 D	--	--
1120	S006	3		7.2	--	0.00 D	--	0.180 D	0.0 D	0.0 D	--	0.040 D
05/09/73	S001			17.0C		--	0.00 D	0.0 D	0.0 D	0.00 D	--	--
1140	S006	3	7640	8.0	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH												
11/15/72	S001			14 C		--	--		--	--	--	--
1010	S006	3		7.1	--	--	--	0.0 D	0.0 D	--	--	--
05/10/73	S001			17.0C		--	0.00 D	0.0 D	0.0 D	0.00 D	--	--
0935	S006	3	5400	8.0	--	0.00 D	--	0.0 D	0.0 D	0.0 D	--	0.0 D
ES 1423.01 ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE												
11/15/72	S050		50	54.0F		--	--		--	--	--	--
1105	S050		360	8.7	--	--	--		--	0.92 T	--	--
03/27/73	S050			60 F		--	--		--	--	--	--
1345	S050		450	8.7	--	--	--		--	0.01 T	--	--
04/06/73	S050			56 F		--	--		--	--	--	--
1630	S050		500	8.9	--	--	--		--	0.01 T	--	--
04/13/73	S050			60.0F		--	--		--	--	--	--
1330	S050		540	8.4	--	--	--		--	0.01 T	--	--
04/18/73	S050			58.0F		--	--		--	--	--	--
1100	S050		580	8.9	--	--	--		--	0.01 T	--	--
04/27/73	S050			74.0F		--	--		--	--	--	--
1620	S050		575	8.5	--	--	--		--	0.00 T	--	--
05/04/73	S050			64.0F		--	--		--	--	--	--
1445	S050		600	8.8	--	--	--		--	0.00 T	--	--
05/09/73	S050			72.0F		--	--		--	--	--	--
1135	S050		550	8.6	--	--	--		--	0.00 T	--	--
05/16/73	S050			70 F		--	--		--	--	--	--
1015	S050		580	8.7	--	--	--		--	0.00 T	--	--

TABLE D-4

MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation
 5050 - Department of Water Resources
 5063 - Santa Cruz County Health Department

Abbreviations and Constituents

TIME - Pacific Standard Time on a 24-hour clock
 TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)
 EC - Electrical conductance in micromhos at 25° Celsius
 DO - Dissolved oxygen content in milligrams per liter
 G.H. - Instantaneous gage height in feet above an established datum
 PH - Measure of acidity (<7) or alkalinity (>7) of water: F - Field; L - Lab
 DISCH - Instantaneous discharge in cubic feet per second
 MBAS - Methylene blue active substance (a test for detergent surfactants) in milligrams per liter: L - Linear alkylate sulfonate; A - Alkyl benzene sulfonate
 DEPTH - Depth in feet at which sample was collected
 TURB - Jackson Turbidity Units
 T+L - Tannin and lignin as tannic acid in milligrams per liter
 CHLOR - Field determination of residual chlorine in milligrams per liter
 O+G - Oil and grease in milligrams per liter
 COLOR - True color in color units
 SET S - Settleable solids in milliliters per liter (ML/L) and milligrams per liter (MG/L): F - Field; L - Lab
 BOD - Biochemical oxygen demand in milligrams per liter: A - 4 days; B - 5 days; C - 6 days; D - 7 days; E - 100 days; F - other
 SUS S - Suspended solids in milligrams per liter: 5 - at 105°C; 8 - at 108°C
 COD - Chemical oxygen demand in milligrams per liter
 V SUS S - Volatile suspended solids in milligrams per liter
 CYANIDE - Cyanide in milligrams per liter
 PHENOLS - Phenols in milligrams per liter
 TOC - Total organic carbon in milligrams per liter
 DOC - Dissolved organic carbon in milligrams per liter
 IODIDE - Iodide in milligrams per liter
 T ODOR - Threshold odor number at 60°C
 BROMIDE - Bromide in milligrams per liter
 SULFITE - Sulfite in milligrams per liter
 T SULF - Total sulfides in milligrams per liter
 D SULF - Dissolved sulfides in milligrams per liter
 CC EXT - Carbon chloroform extract
 CA EXT - Carbon alcohol extract

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	SET 5 O+G ML/L COLOR MG/L	BOD SUS 5	COD SUS 5	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
D0 1100.00 BRANCIFORTE CREEK AT SANTA CRUZ																
03/19/73 1415	5063 5050	50.0F 300	10.0	7.2	0.0	A	--	--	27	5	--	--	--	--	--	--
09/27/73 1330	5050 5050	62 F 450	9.7	7.7 8.3	1 E 0.0	A	--	--	26	5	--	--	--	--	--	--
D0 1180.01 SAN LORENZO RIVER AT PARADISE PARK																
03/19/73 1000	5063 5050	50.0F 335	11.0	7.5	0.0	A	--	--	10	5	--	--	--	--	--	--
09/27/73 1000	5050 5050	57 F 330	10.2	7.7 8.3	0.0	A	--	--	22	5	--	--	--	--	--	--
D0 1220.01 ZAYANTE CREEK AT FELTON																
03/19/73 1115	5063 5050	49.0F 415	11.5	7.4	0.0	A	--	--	43	5	--	--	--	--	--	--
09/27/73 1115	5050 5050	56 F 330	10.9	7.7 8.1	0.0	A	--	--	4	5	--	--	--	--	--	--
D0 1498.01 SAN LORENZO RIVER AT BOULDER CREEK																
03/19/73 1200	5063 5050	48.0F 195	11.5	7.2	0.0	A	--	--	6	5	--	--	--	--	--	--
09/27/73 1150	5050 5050	58 F 440	9.6	7.7 8.2	5 E 0.0	A	--	--	22	5	--	--	--	--	--	--
D0 2020.00 APTOS CREEK BELOW VALENCIA CREEK																
03/19/73 1330	5063 5050	48 F 440	10.5	7.7	0.0	A	--	--	239	5	--	--	--	--	--	--
09/27/73 1400	5050 5050	60 F 670	9.6	8.0 8.5	1 E 0.0	A	--	--	20	5	--	--	--	--	--	--
D0 3100.00 SOQUEL CREEK AT SOQUEL																
03/19/73 1300	5063 5050	49.0F 530	10.5	7.8	0.0	A	--	--	42	5	--	--	--	--	--	--
09/27/73 1330	5050 5050	72 F 650	10.4 2.72	8.0 8.3	0.0	A	--	--	36	5	--	--	--	--	--	--
D0 4010.01 SCOTT CREEK AT HIGHWAY 1																
03/19/73 0930	5063 5050	50.0F 225	11.0	6.8	0.0	A	--	--	2	5	--	--	--	--	--	--
09/27/73 1530	5050 5050	61 F 370	10.4	7.3 8.3	2 E 0.0	A	--	--	2	5	--	--	--	--	--	--
D1 1250.00 PAJARO RIVER AT CHITTENDEN																
07/18/73 0945	5050 5050	65 F 1400	10.4 1.00	8.4	--	--	--	--	45	5	--	--	--	--	--	--
D1 1371.50 UVAS CREEK NR MORGAN HILL BL UVAS DAM																
07/18/73 1215	5050 5050	65 F 250	10.9	8.2	--	--	--	--	5	5	--	--	--	--	--	--
D1 2450.00 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL																
07/18/73 1340	5050 5050	80 F 850	9.8	8.4	--	--	--	--	32	5	--	--	--	--	--	--
D2 1006.60 MERRITT LAKE DRAIN AT PUMP																
07/18/73 0820	5050 5050	64 F 1950	9.4	8.2	--	--	--	--	71	5	--	--	--	--	--	--
D2 1030.30 BLANCO DRAIN AT PUMP LIFT																
07/18/73 0730	5050 5050	62 F 1350	8.6	8.0	--	--	--	--	27	5	--	--	--	--	--	--
D2 1325.10 SALINAS RIVER NEAR GONZALES																
07/17/73 1215	5050 5050	74 F 350	11.7	8.4	--	--	--	--	111	5	--	--	--	--	--	--
D2 1850.00 SALINAS RIVER NEAR BRADLEY																
07/17/73 1015	5050 5050	70 F 220	14.7 4.79	8.4	--	--	--	--	13	5	--	--	--	--	--	--
D4 1200.00 CARMEL RIVER AT ROBLES DEL RIO																
07/17/73 1335	5050 5050	72 F 700	17.8 3.53	8.4	--	--	--	--	6	5	--	--	--	--	--	--
E0 8 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																
10/11/72 0930	5050 5050	65 F 45000	6.7	7.9	--	--	--	--	6	5	--	--	--	--	--	--
11/27/72 1230	5050 5050	57 F 38000	7.8	7.9	--	--	--	--	18	5	--	--	--	--	--	--
12/11/72 1115	5050 5050	48 F 40000	8.3	7.9	--	--	--	--	6	5	--	--	--	--	--	--
01/23/73 1130	5050 5050	49 F 28000	9.7	7.9	--	--	--	--	2	5	--	--	--	--	--	--
02/06/73 1030	5050 5050	51 F 28000	9.3	7.9	--	--	--	--	14	5	--	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	O+G COLOR	SET 5 ML/L	BOD SUS 5	COD V SUS 5	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL) CONTINUED																	
03/20/73 0915	5050 5050	53 F 26000	9.2	8.1	--	--	--	--	--	43	5	--	--	--	--	--	--
04/05/73 0915	5050 5050	58 F 26000	9.5	8.2	--	--	--	--	--	28	5	--	--	--	--	--	--
05/03/73 0810	5050 5050	60 F 33000	8.8	8.2	--	--	--	--	--	45	5	--	--	--	--	--	--
06/18/73 1000	5050 5050	66 F 38000	9.0	8.0	--	--	--	--	--	1	5	--	--	--	--	--	--
09/13/73 0810	5050 5050	66 F 44000	6.9	8.2	--	--	--	--	--	40	5	--	--	--	--	--	--
E0 B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																	
10/11/72 1100	5050 5050	65 F 45000	7.2	7.9	--	--	--	--	--	10	5	--	--	--	--	--	--
11/27/72 1330	5050 5050	57 F 40000	8.2	8.1	--	--	--	--	--	21	5	--	--	--	--	--	--
12/11/72 1200	5050 5050	45 F 41000	9.2	8.0	--	--	--	--	--	4	5	--	--	--	--	--	--
01/23/73 1220	5050 5050	49 F 32000	9.1	7.9	--	--	--	--	--	36	5	--	--	--	--	--	--
02/06/73 1100	5050 5050	51 F 28000	9.1	7.9	--	--	--	--	--	21	5	--	--	--	--	--	--
03/20/73 1015	5050 5050	53 F 26000	9.6	8.0	--	--	--	--	--	140	5	--	--	--	--	--	--
04/05/73 1005	5050 5050	59 F 26000	9.6	8.2	--	--	--	--	--	43	5	--	--	--	--	--	--
05/03/73 0900	5050 5050	60 F 34000	9.0	8.2	--	--	--	--	--	28	5	--	--	--	--	--	--
06/18/73 1045	5050 5050	66 F 40000	11.1	8.0	--	--	--	--	--	5	5	--	--	--	--	--	--
09/13/73 0910	5050 5050	64 F 45000	7.0	8.2	--	--	--	--	--	20	5	--	--	--	--	--	--
E0 B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND																	
10/11/72 0850	5050 5050	62 F 42000	7.1	7.9	--	--	--	--	--	9	5	--	--	--	--	--	--
11/27/72 1100	5050 5050	56 F 37500	8.1	7.9	--	--	--	--	--	23	5	--	--	--	--	--	--
12/11/72 1000	5050 5050	48 F 39000	8.6	8.1	--	--	--	--	--	30	5	--	--	--	--	--	--
01/23/73 1000	5050 5050	48 F 15000	9.8	7.8	--	--	--	--	--	231	5	--	--	--	--	--	--
02/06/73 0840	5050 5050	50 F 23000	9.5	8.3	--	--	--	--	--	31	5	--	--	--	--	--	--
03/20/73 0730	5050 5050	52 F 34000	9.0	8.1	--	--	--	--	--	19	5	--	--	--	--	--	--
04/05/73 0800	5050 5050	55 F 34000	9.0	8.2	--	--	--	--	--	20	5	--	--	--	--	--	--
05/03/73 0645	5050 5050	56 F 41000	8.2	8.2	--	--	--	--	--	21	5	--	--	--	--	--	--
06/18/73 0845	5050 5050	64 F 40000	8.7	8.1	--	--	--	--	--	4	5	--	--	--	--	--	--
09/13/73 0640	5050 5050	62 F 45000	7.4	8.1	--	--	--	--	--	13	5	--	--	--	--	--	--
E0 B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT																	
10/04/72 1300	5001 5050	17 C 8.0	7.5	8.0	--	3	--	--	--	15	5	5	--	--	--	--	--
11/16/72 1010	5001 5050	14 C 7.8	8.7	7.8	--	3	--	--	--	9	5	5	--	--	--	--	--
02/14/73 1200	5001 5050	11 C 7.8	10.3	7.8	--	3	--	--	--	36	5	18	--	--	--	--	--
04/11/73 1115	5001 5050	15.0C 19100	8.5	7.6	--	3	--	--	--	14	5	4	--	--	--	--	--
04/25/73 0840	5001 5050	22600			--	3	--	--	--	7	5	3	--	--	--	--	--
04/25/73 0841	5001 5050	30500			--	15	--	--	--	11	5	2	--	--	--	--	--
04/25/73 0842	5001 5050	33000			--	25	--	--	--	19	5	2	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T-L CHLOR	O+G COLOR	SET 5 ML/L MG/L	BOD SUS 5	COD V SUS 5	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 8 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT																	
CONTINUED																	
04/25/73 0843	5001 5050	35700			--	39	--	--	--	--	15 5	3	--	--	--	--	--
05/09/73 0925	5001 5050	15.0C 27500	8.8	8.0 7.6	--	3	--	--	--	--	19 5	1	--	--	--	--	--
06/12/73 1430	5001 5050	20.0C 32800	8.4	7.9 7.8	--	3	--	--	--	--	12 5	3	--	--	--	--	--
06/12/73 1431	5001 5050	19.0C 35000			--	43	--	--	--	--	28 5	5	--	--	--	--	--
07/10/73 1415	5001 5050	41000	7.8	7.9 7.9	--	3	--	--	--	--	12 5	0	--	--	--	--	--
07/10/73 1416	5001 5050	41050			--		--	--	--	--	31 5	6	--	--	--	--	--
08/07/73 1235	5001 5050	20.0C 38300	8.3	7.9 8.1	--	3	--	--	--	--	6 5	1	--	--	--	--	--
08/07/73 1236	5001 5050	19.0C 46000			--	35	--	--	--	--	8 5	0	--	--	--	--	--
09/05/73 1135	5001 5050	18.0C 38580	7.9	7.9 8.0	--	3	--	--	--	--	12 5	3	--	--	--	--	--
09/05/73 1136	5001 5050	18.0C 39400	7.8	7.9	--	39	--	--	--	--	10 5	3	--	--	--	--	--
E0 R 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES																	
10/04/72 1430	5001 5050	18 C	8.1	8.0	--	3	--	--	--	--	14 5	4	--	--	--	--	--
10/18/72 1300	5001 5050	18 C	7.8	7.8 7.8	--	3	--	--	--	--	12 5	2	--	--	--	--	--
11/16/72 1140	5001 5050	14 C	8.4	7.7 7.7	--	3	--	--	--	--	27 5	6	--	--	--	--	--
02/14/73 1315	5001 5050	11 C	9.8	7.6 7.7	--	3	--	--	--	--	160 5	22	--	--	--	--	--
03/15/73 1130	5001 5050	12 C	10.0	7.8 7.5	--	3	--	--	--	--	47 5	10	--	--	--	--	--
03/28/73 0940	5001 5050	12.0C 6900	10.0	7.6 7.4	--	3	--	--	--	--	24 5	7	--	--	--	--	--
04/11/73 1240	5001 5050	16.0C 6900	8.8	7.5 7.4	--	3	--	--	--	2.8 R 53 5	--	6	--	--	--	--	--
04/25/73 1005	5001 5050	16.0C 9800	9.3	7.6 7.6	--	3	--	--	--	--	31 5	6	--	--	--	--	--
04/25/73 1006	5001 5050				--	15	--	--	--	--	35 5	6	--	--	--	--	--
04/25/73 1007	5001 5050				--	27	--	--	--	--	120 5	24	--	--	--	--	--
05/09/73 1110	5001 5050	17.0C 12350	9.0	7.9 7.7	--	3	--	--	--	1.2 R 37 5	--	8	--	--	--	--	--
05/30/73 1510	5001 5050	19.0C 17300	8.4	7.9 7.7	--	3	--	--	--	--	48 5	8	--	--	--	--	--
06/12/73 1600	5001 5050	21.0C 18000	8.2	7.9 7.9	--	3	--	--	--	1.2 R 15 5	--	5	--	--	--	--	--
06/12/73 1601	5001 5050	20.0C 21100			--	32	--	--	--	--	44 5	5	--	--	--	--	--
06/27/73 1410	5001 5050	22.0C 21500	7.8	7.9 7.9	--	3	--	--	--	--	18 5	5	--	--	--	--	--
06/27/73 1411	5001 5050	24000		7.8	--	33	--	--	--	--	89 5	13	--	--	--	--	--
07/11/73 1355	5001 5050	21.0C 22740	8.5	8.1 8.0	--	3	--	--	--	1.4 R 38 5	--	6	--	--	--	--	--
07/11/73 1356	5001 5050	25300			--	35	--	--	--	--	111 5	14	--	--	--	--	--
08/07/73 1410	5001 5050	20.0C 23200	8.9	8.1 8.1	--	3	--	--	--	1.2 R 20 5	--	4	--	--	--	--	--
08/07/73 1411	5001 5050	20.0C 26700			--	31	--	--	--	--	23 5	2	--	--	--	--	--
08/22/73 1100	5001 5050	19.0C 21320	8.4	7.9 7.9	--	3	--	--	--	--	21 5	4	--	--	--	--	--
08/22/73 1101	5001 5050	19.0C 22950		7.9	--	33	--	--	--	--	49 5	8	--	--	--	--	--
09/05/73 1305	5001 5050	18.0C 21840	8.1	8.0 8.1	--	3	--	--	--	1.3 R 18 5	--	2	--	--	--	--	--
09/05/73 1306	5001 5050	19.0C 26040		7.8	--	30	--	--	--	--	30 5	6	--	--	--	--	--
09/19/73 0935	5001 5050	19.0C 14850	8.0	8.0 7.9	--	3	--	--	--	--	33 5	6	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	O+G COLOR	SET 5 ML/L	BOD SUS 5	COD V SUS 5	CYANIDE PHENOLS	TOC DOC	IOOIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 8 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND																	
10/04/72 1530	5001 5050	19 C	9.1	8.1	--	3	--	--	--	109	5	16	--	--	--	--	--
10/18/72 1420	5001 5050	18 C	8.3	7.7 7.8	--	3	--	--	--	45	5	6	--	--	--	--	--
10/20/72 1125	5001 5050				--		--	--	--	58	5	8	--	--	--	--	--
10/20/72 1215	5001 5050				--		--	--	--	74	5	13	--	--	--	--	--
10/20/72 1242	5001 5050				--		--	--	--	45	5	8	--	--	--	--	--
10/20/72 1330	5001 5050				--		--	--	--	68	5	10	--	--	--	--	--
10/20/72 1542	5001 5050				--		--	--	--	47	5	2	--	--	--	--	--
11/15/72 1110	5001 5050	13 C	9.7	7.7 7.5	--	3	--	--	--	71	5	10	--	--	--	--	--
03/15/73 1245	5001 5050	12 C	10.5	8.0 7.3	--	3	--	--	--	60	5	12	--	--	--	--	--
03/28/73 1100	5001 5050	12.0C 265	10.5	7.6 7.7	--	3	--	--	--	58	5	11	--	--	--	--	--
04/11/73 1345	5001 5050	16.0C 350	9.4	7.5 7.5	--	3	--	--	--	1.7 R 50	--	6	--	--	--	--	--
04/25/73 1200	5001 5050	16.0C 445	10.2	8.2 7.7	--	3	--	--	--	60	5	9	--	--	--	--	--
04/25/73 1201	5001 5050	455			--	15	--	--	--	79	5	10	--	--	--	--	--
04/25/73 1202	5001 5050	460			--	25	--	--	--	85	5	10	--	--	--	--	--
04/25/73 1203	5001 5050	455			--	39	--	--	--	105	5	13	--	--	--	--	--
05/09/73 1225	5001 5050	18.0C 1930	9.3	8.1 7.9	--	3	--	--	--	1.2 R 70	--	10	--	--	--	--	--
05/30/73 1640	5001 5050	21.0C 2500	9.0	7.8 8.5	--	3	--	--	--	103	5	13	--	--	--	--	--
06/12/73 1710	5001 5050	22.0C 2890	8.5	7.9 8.0	--	3	--	--	--	1.2 R 74	--	12	--	--	--	--	--
06/12/73 1711	5001 5050	3700			--	39	--	--	--	80	5	10	--	--	--	--	--
06/27/73 1530	5001 5050	23.0C 6300	8.7	8.0 7.6	--	3	--	--	--	52	5	7	--	--	--	--	--
06/27/73 1531	5001 5050	7400		7.9	--	41	--	--	--	94	5	12	--	--	--	--	--
07/11/73 1530	5001 5050	23.0C 8571	9.0	8.1 8.2	--	3	--	--	--	2.0 R 103	--	13	--	--	--	--	--
07/11/73 1531	5001 5050	9279			--	38	--	--	--	126	5	16	--	--	--	--	--
08/07/73 1525	5001 5050	20.0C 8170	9.4	9.3 8.2	--	3	--	--	--	1.4 R 72	--	10	--	--	--	--	--
08/07/73 1526	5001 5050	9000			--	37	--	--	--	92	5	10	--	--	--	--	--
08/22/73 1220	5001 5050	20.0C 6800		7.9	--	32	--	--	--	113	5	16	--	--	--	--	--
08/22/73 1220	5001 5050	20.0C 6920	8.6	7.9 8.0	--	3	--	--	--	108	5	14	--	--	--	--	--
09/05/73 1425	5001 5050	19.0C 5542	8.6	8.1 8.3	--	3	--	--	--	0.9 R 64	--	7	--	--	--	--	--
09/05/73 1425	5001 5050	19.0C 6295		7.9	--	36	--	--	--	80	5	12	--	--	--	--	--
09/19/73 1050	5001 5050	20.0C 1940	8.0	8.1 7.8	--	3	--	--	--	85	5	10	--	--	--	--	--
E0 8 803.5 217.0 SAN PABLO BAY NEAR RODEO																	
04/11/73 1150	5001 5050	16.0C 15200	8.8	7.6 7.3	--	3	--	--	--	1.6 R 19	--	3	--	--	--	--	--
05/09/73 1010	5001 5050	16.0C 20700	8.8	8.0 7.6	--	3	--	--	--	0.9 R 26	--	5	--	--	--	--	--
06/12/73 1510	5001 5050	20.0C 27800	8.2	7.9 7.8	--	3	--	--	--	1.3 R 57	--	12	--	--	--	--	--
06/12/73 1511	5001 5050	32000			--	42	--	--	--	74	5	11	--	--	--	--	--
07/11/73 1305	5001 5050	20.0C 31920	7.7	7.9 7.9	--	3	--	--	--	1.0 R 71	--	9	--	--	--	--	--
07/11/73 1306	5001 5050	36280			--	43	--	--	--	71	5	11	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURR	T+L CHLOR	O+G COLOR	SET 5 ML/L	BOD SUS 5	COD V SUS 5	CYANIDE PHENOLS	TOC DOC	IODIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
FO B 803.5 217.0				SAN PABLO BAY NEAR RODEO				CONTINUED									
08/07/73 1310	5001 5050	19.0C 33400	8.0	7.9 8.1	--	3	--	--	--	1.0 R 31 5	-- 4	--	--	--	--	--	--
08/07/73 1311	5001 5050	19.0C 37100			--	35	--	--	--	29 5	4	--	--	--	--	--	--
09/05/73 1210	5001 5050	18.0C 32500		7.8 7.9	--	3	--	--	--	0.6 R 59 5	-- 10	--	--	--	--	--	--
09/05/73 1211	5001 5050	18.0C 36400		7.8	--	36	--	--	--	26 5	5	--	--	--	--	--	--
EO B 803.6 159.3				SUISUN BAY OFF MIDDLE POINT													
03/28/73 1030	5001 5050	12.0C 305	10.4	7.7 7.7	--	3	--	--	--	35 5	8	--	--	--	--	--	--
04/25/73 1130	5001 5050	17.0C 1480	10.6	8.4 7.9	--	3	--	--	--	33 5	7	--	--	--	--	--	--
05/30/73 1615	5001 5050	21.0C 6000	9.1	8.0 8.5	--	3	--	--	--	127 5	16	--	--	--	--	--	--
06/27/73 1505	5001 5050	23.0C 9200	8.6	8.0 7.5	--	3	--	--	--	41 5	8	--	--	--	--	--	--
06/27/73 1506	5001 5050	14000		7.9	--	34	--	--	--	98 5	14	--	--	--	--	--	--
08/22/73 1150	5001 5050	20.0C 8640	9.2	7.4 8.0	--	3	--	--	--	45 5	87	--	--	--	--	--	--
08/22/73 1151	5001 5050	20.0C 12720		7.8	--	35	--	--	--	81 5	13	--	--	--	--	--	--
09/19/73 1025	5001 5050	19.0C 3950	8.1	8.2 8.0	--	3	--	--	--	73 5	10	--	--	--	--	--	--
EO B 804.0 203.0				SUISUN BAY NEAR PRESTON POINT													
10/18/72 1330	5001 5050	18 C	8.0	7.8	--	3	--	--	--	29 5	4	--	--	--	--	--	--
03/15/73 1200	5001 5050	12 C	10.2	7.9 7.5	--	3	--	--	--	57 5	14	--	--	--	--	--	--
03/28/73 1005	5001 5050	12.0C 690	10.7	7.9 7.8	--	3	--	--	--	47 5	11	--	--	--	--	--	--
04/11/73 1305	5001 5050	16.0C 1750	9.4	7.6 7.6	--	3	--	--	--	1.6 R 52 5	-- 5	--	--	--	--	--	--
04/25/73 1045	5001 5050	16.0C 6300	9.0	8.0 7.8	--	3	--	--	--	56 5	7	--	--	--	--	--	--
04/25/73 1046	5001 5050	9950			--	15	--	--	--	88 5	10	--	--	--	--	--	--
04/25/73 1047	5001 5050	15800			--	25	--	--	--	44 5	7	--	--	--	--	--	--
04/25/73 1048	5001 5050	18100			--	40	--	--	--	68 5	9	--	--	--	--	--	--
05/04/73 1100	5001 5050	17.0C 5000	8.6		--	3	--	--	--	178 5	18	--	--	--	--	--	--
05/04/73 1101	5001 5050	17.0C 5000	8.6		--	12	--	--	--	216 5	20	--	--	--	--	--	--
05/04/73 1200	5001 5050	17.0C 3800	9.0		--	3	--	--	--	157 5	17	--	--	--	--	--	--
05/04/73 1201	5001 5050	17.0C 4500	8.8		--	20	--	--	--	191 5	18	--	--	--	--	--	--
05/04/73 1300	5001 5050	17.0C 4000	9.0		--	3	--	--	--	118 5	12	--	--	--	--	--	--
05/04/73 1301	5001 5050	17.0C 4700	8.7		--	20	--	--	--	154 5	16	--	--	--	--	--	--
05/04/73 1400	5001 5050	17.0C 4900	8.7		--	3	--	--	--	102 5	12	--	--	--	--	--	--
05/04/73 1401	5001 5050	17.0C 6000	8.7		--	20	--	--	--	270 5	28	--	--	--	--	--	--
05/04/73 1500	5001 5050	17.0C 8000	8.5		--	3	--	--	--	231 5	25	--	--	--	--	--	--
05/04/73 1501	5001 5050	17.0C 8000	8.5		--	20	--	--	--	254 5	28	--	--	--	--	--	--
05/04/73 1600	5001 5050	17.0C 9000	8.5		--	3	--	--	--	225 5	23	--	--	--	--	--	--
05/04/73 1601	5001 5050	17.0C 10000	8.5		--	20	--	--	--	284 5	30	--	--	--	--	--	--
05/04/73 1700	5001 5050	16.0C 12000	8.5		--	3	--	--	--	226 5	24	--	--	--	--	--	--
05/04/73 1701	5001 5050	16.0C 12000	8.4		--	20	--	--	--	291 5	31	--	--	--	--	--	--
05/04/73 1800	5001 5050	16.0C 13000	8.4		--	3	--	--	--	176 5	21	--	--	--	--	--	--
05/04/73 1801	5001 5050	16.0C 14000	8.3		--	20	--	--	--	317 5	33	--	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	SET 5 O+G COLOR	ML/L MG/L	BOD SUS S	COD SUS S	CYANIDE PHENDLS	TOC DOC	IODIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT																	
CONTINUED																	
05/04/73 1900	5001 5050	16.0C 12000	8.9		--	3	--	--	--	153	5	17	--	--	--	--	--
05/04/73 1901	5001 5050	16.0C 16000	8.3		--	20	--	--	--	126	5	15	--	--	--	--	--
05/09/73 1140	5001 5050	17.0C 7640	9.2	8.0 7.7	--	3	--	--	--	1.1 8 55	5	15	--	--	--	--	--
05/30/73 1545	5001 5050	20.0C 8900	9.3	8.1 8.4	--	3	--	--	--	186	5	20	--	--	--	--	--
06/12/73 1625	5001 5050	21.0C 11250	8.4	7.9 7.9	--	3	--	--	--	1.8 8 90	5	14	--	--	--	--	--
06/12/73 1626	5001 5050	15020			--	46	--	--	--	71	5	10	--	--	--	--	--
06/27/73 1440	5001 5050	22.0C 16250	8.5	7.9 7.6	--	3	--	--	--	50	5	10	--	--	--	--	--
06/27/73 1441	5001 5050	18500		7.8	--	47	--	--	--	2.2 8 212	5	26	--	--	--	--	--
07/11/73 1420	5001 5050	22.0C 17240	9.5	8.3 8.2	--	3	--	--	--	62	5	8	--	--	--	--	--
07/11/73 1421	5001 5050	19810			--	43	--	--	--	435	5	49	--	--	--	--	--
08/07/73 1440	5001 5050	20.0C 16400	10.0	8.4 8.2	--	3	--	--	--	1.8 8 82	5	11	--	--	--	--	--
08/07/73 1441	5001 5050	20.0C 20200			--	42	--	--	--	23	5	2	--	--	--	--	--
08/22/73 1130	5001 5050	20.0C 14080	8.8	8.0 7.9	--	3	--	--	--	64	5	11	--	--	--	--	--
08/22/73 1131	5001 5050	19.0C 17360		8.0	--	39	--	--	--	142	5	20	--	--	--	--	--
09/05/73 1330	5001 5050	18.0C 12600	8.4	8.1 8.3	--	3	--	--	--	1.4 8 80	5	10	--	--	--	--	--
09/05/73 1331	5001 5050	18380		7.9	--	34	--	--	--	31	5	6	--	--	--	--	--
09/19/73 1000	5001 5050	19.0C 12120	7.5	8.1 7.9	--	3	--	--	--	108	5	16	--	--	--	--	--
E0 B 804.4 156.2 HONKER BAY NEAR WHEELER POINT																	
03/15/73 1230	5001 5050	11 C 10.8	8.0 7.5		--	3	--	--	--	72	5	12	--	--	--	--	--
03/29/73 1050	5001 5050	12.0C 252	10.3	7.7 7.8	--	3	--	--	--	44	5	9	--	--	--	--	--
04/12/73 1130	5001 5050	15.0C 403	9.5	7.6 7.6	--	3	--	--	--	66	5	12	--	--	--	--	--
04/26/73 1020	5001 5050	17.0C 2220	10.6	8.3 7.8	--	3	--	--	--	46	5	7	--	--	--	--	--
05/10/73 1020	5001 5050	18.0C 2480	9.0	8.0 7.7	--	3	--	--	--	99	5	12	--	--	--	--	--
05/31/73 1455	5001 5050	20.0C 2180	8.6	7.7 8.9	--	3	--	--	--	92	5	16	--	--	--	--	--
06/13/73 1545	5001 5050	21.0C 3300	8.2	7.8 7.9	--	3	--	--	--	135	5	16	--	--	--	--	--
06/26/73 1330	5001 5050	23.0C 6700	7.8	7.8 8.0	--	3	--	--	--	80	5	12	--	--	--	--	--
07/11/73 1505	5001 5050	22.0C 9680	8.7	8.2 8.0	--	3	--	--	--	159	5	20	--	--	--	--	--
08/08/73 1350	5001 5050	20.0C 8430	9.3	8.2 8.0	--	3	--	--	--	185	5	20	--	--	--	--	--
08/23/73 1300	5001 5050	21.0C 7420	8.6	7.7 7.7	--	3	--	--	--	196	5	26	--	--	--	--	--
09/06/73 1305	5001 5050	19.0C 5830		8.0 8.2	--	3	--	--	--	97	5	13	--	--	--	--	--
09/20/73 1050	5001 5050	20.0C 2220	7.9	8.0 7.8	--	3	--	--	--	116	5	15	--	--	--	--	--
E0 B 805.3 226.3 SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																	
04/11/73 1010	5001 5050	17.0C 18200	11.2	7.9 7.4	--	3	--	--	--	48	5	11	--	--	--	--	--
05/09/73 0845	5001 5050	16.0C 26500	10.1	8.3 7.6	--	3	--	--	--	49	5	10	--	--	--	--	--
06/12/73 1350	5001 5050	21.0C 27800	8.1	7.9 7.7	--	3	--	--	--	96	5	16	--	--	--	--	--
07/10/73 1325	5001 5050	21.0C 36000	7.8	8.0 7.8	--	3	--	--	--	152	5	15	--	--	--	--	--
08/07/73 1200	5001 5050	20.0C 33500	8.0	7.7 7.7	--	3	--	--	--	41	5	6	--	--	--	--	--
09/05/73 1050	5001 5050	18.0C 34700	7.5	7.8 7.8	--	3	--	--	--	111	5	14	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	O+G COLOR	ML/L MG/L	800 SUS 5	COO V SUS 5	CYANIDE PHENOLS	TOC DOC	100IDE T OOR	BROMIDE SULFITE	T SULF O SULF	CC EXT CA EXT
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																	
10/03/72 1300	5001 5050	18.5C	8.7	8.0	--	3	--	--	--	114	5	16	--	--	--	--	--
10/18/72 1215	5001 5050	18 C	8.0	7.5 7.3	--	3	--	--	--	51	5	6	--	--	--	--	--
11/15/72 1010	5001 5050	14 C	9.2	7.1 7.6	--	3	--	--	--	98	5	12	--	--	--	--	--
03/15/73 1005	5001 5050	11 C	10.7	7.5 7.6	--	3	--	--	--	72	5	13	--	--	--	--	--
03/29/73 1000	5001 5050	12.0C 320	10.1	7.7 7.6	--	3	--	--	--	89	5	15	--	--	--	--	--
04/12/73 1040	5001 5050	16.0C 1210	9.4	7.7 7.6	--	3	--	--	--	78	5	12	--	--	--	--	--
04/26/73 0940	5001 5050	17.0C 4920	9.9	8.0 7.7	--	3	--	--	--	56	5	9	--	--	--	--	--
05/10/73 0935	5001 5050	17.0C 5400	8.9	8.0 7.7	--	3	--	--	--	100	5	12	--	--	--	--	--
05/31/73 1415	5001 5050	20.0C 7600	8.8	7.9 7.7	--	3	--	--	--	173	5	24	--	--	--	--	--
06/13/73 1345	5001 5050	20.0C 7330	8.1	7.8 7.9	--	3	--	--	--	79	5	11	--	--	--	--	--
06/27/73 1330	5001 5050	23.0C 12600	9.3	7.6 7.5	--	3	--	--	--	84	5	12	--	--	--	--	--
08/08/73 1145	5001 5050	19.0C 13600	9.4	8.0 8.0	--	3	--	--	--	166	5	20	--	--	--	--	--
08/22/73 1000	5001 5050	19.0C 11360	9.1	8.0 8.0	--	3	--	--	--	85	5	12	--	--	--	--	--
09/06/73 1050	5001 5050	18.0C 9040	6.8	8.0 8.0	--	3	--	--	--	80	5	15	--	--	--	--	--
09/19/73 0850	5001 5050	19.0C 6348	8.3	7.9 7.9	--	3	--	--	--	116	5	15	--	--	--	--	--
E0 S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																	
11/14/72 0940	5001 5001	11 C	7.1	7.1	--	3	--	--	--	3.4	8	--	--	--	--	--	--
02/26/73 1045	5001 5050	13 C	7.9	7.4	--	3	--	--	--	78	5	23	--	--	--	--	--
03/27/73 0920	5001 5050	13 C	8.2	7.2	--	3	--	--	--	62	5	18	--	--	--	--	--
04/26/73 0905	5001 5050	19 C	8.1	7.7	--	3	--	--	--	102	5	15	--	--	--	--	--
05/24/73 0920	5001 5050	19 C	8.3	7.9	--	3	--	--	--	82	5	14	--	--	--	--	--
06/25/73 1125	5001 5050	24 C	6.9	7.5	--	3	--	--	--	88	5	14	--	--	--	--	--
F0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																	
10/13/72 1125	5001 5050	19 C	6.6	7.5	--	2	--	--	--	66	5	10	--	--	--	--	--
11/14/72 1330	5001 5050	12 C	8.1	7.4	--	3	--	--	--	2.4	8	--	--	--	--	--	--
02/26/73 1415	5001 5050	13 C	7.4	7.5	--	3	--	--	--	131	5	25	--	--	--	--	--
03/27/73 1305	5001 5050	14 C	8.4	7.3	--	3	--	--	--	51	5	16	--	--	--	--	--
04/12/73 0950	5001 5050	17.0C 1330	8.0	7.4	--	3	--	--	--	2.6	8	--	--	--	--	--	--
04/26/73 0851	5001 5050	1650	--	--	--	15	--	--	--	90	5	14	--	--	--	--	--
04/26/73 0852	5001 5050	1670	--	--	--	25	--	--	--	89	5	13	--	--	--	--	--
04/26/73 0853	5001 5050	1700	--	--	--	80T	--	--	--	93	5	14	--	--	--	--	--
04/26/73 1310	5001 5050	20 C 1660	8.8	8.1	--	3	--	--	--	74	5	12	--	--	--	--	--
05/10/73 0845	5001 5050	18.0C 3700	7.4	7.7	--	3	--	--	--	2.2	8	--	--	--	--	--	--
05/24/73 1340	5001 5050	19 C 3880	8.8	8.3	--	3	--	--	--	104	5	22	--	--	--	--	--
06/13/73 1230	5001 5050	21.0C 4700	7.4	7.7	--	3	--	--	--	3.0	8	--	--	--	--	--	--
06/13/73 1231	5001 5050	21 C 4700	--	--	--	29	--	--	--	217	5	30	--	--	--	--	--
06/21/73 0900	5001 5050	--	--	--	--	3	--	--	--	133	5	17	--	--	--	--	--
06/21/73 0901	5001 5050	--	--	--	--	80T	--	--	--	162	5	18	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.H.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	SET 5 ML/L O+G COLOR	BOD SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	IOOIDE T ODOR	BROMIDE SULFITE	T SULF D SULF	CC EXT CA EXT
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND CONTINUED																
06/21/73 1130	5001 5050				--	3	--	--	--	99 5	18	--	--	--	--	--
06/21/73 1131	5001 5050				--	BDT	--	--	--	136 5	18	--	--	--	--	--
06/21/73 1500	5001 5050				--	3	--	--	--	106 5	15	--	--	--	--	--
06/21/73 1501	5001 5050				--	BDT	--	--	--	276 5	32	--	--	--	--	--
06/25/73 1455	5001 5050	24 C 5900	8.8	7.9	--	3	--	--	--	86 5	15	--	--	--	--	--
07/23/73 1345	5001 5050	20 C 9259	10.3	8.1	--	3	--	--	--	78 5	14	--	--	--	--	--
08/08/73 1030	5001 5050	20 C 10700	8.3	7.4	--	3	--	--	2.2 R 117 5	--	15	--	--	--	--	--
08/08/73 1031	5001 5050	20.0C 11000		7.5	--	30	--	--	--	144 5	17	--	--	--	--	--
08/20/73 1300	5001 5050	20.0C 10500	7.4	7.8	--	3	--	--	--	60 5	10	--	--	--	--	--
09/06/73 1140	5001 5050	19.0C 11200	6.9	7.7	--	3	--	--	1.6 R 55 5	--	6	--	--	--	--	--
09/06/73 1141	5001 5050	20.0C 11150		7.7	--	28	--	--	--	90 5	13	--	--	--	--	--
09/18/73 1235	5001 5050	20 C 10000	8.0	8.1	--	3	--	--	--	72 5	9	--	--	--	--	--
E0 S 811.0 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																
11/14/72 1230	5001 5001	11 C 800	8.5	7.1	--	3	--	--	4.0 R --	--	--	--	--	--	--	--
02/26/73 1300	5001 5050	13 C	9.0	7.3	--	3	--	--	--	33 5	16	--	--	--	--	--
03/27/73 1135	5001 5050	15 C 1320	8.9	7.3	--	3	--	--	--	66 5	18	--	--	--	--	--
04/26/73 1155	5001 5050	22 C 1520	8.9	8.1	--	3	--	--	--	77 5	15	--	--	--	--	--
05/24/73 1140	5001 5050	20 C 3900	7.6	7.8	--	3	--	--	--	113 5	19	--	--	--	--	--
06/25/73 1320	5001 5050	23 C 6500	7.9	7.6	--	3	--	--	--	65 5	12	--	--	--	--	--
06/25/73 1545	5001 5050	22 C 4600	8.1	8.0	--	1	--	--	--	64 5	10	--	--	--	--	--
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																
11/14/72 1435	5001 5001	13 C --	8.4	7.4	--	3	--	--	2.2 R --	--	--	--	--	--	--	--
02/26/73 1520	5001 5050	13 C	9.4	7.4	--	3	--	--	--	61 5	16	--	--	--	--	--
03/27/73 1405	5001 5050	13 C 950	9.5	7.1	--	3	--	--	--	46 5	16	--	--	--	--	--
04/26/73 1405	5001 5050	20 C 1660	8.9	8.0	--	3	--	--	--	73 5	13	--	--	--	--	--
05/24/73 1440	5001 5050	19 C 3320	7.8	7.8	--	3	--	--	--	80 5	14	--	--	--	--	--
06/25/73 1543	5001 5050	23 C 5600	7.4	7.8	--	3	--	--	--	48 5	10	--	--	--	--	--
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER END																
03/27/73 1025	5001 5050	14 C 575	10.0	7.7	--	3	--	--	--	62 5	18	--	--	--	--	--
04/26/73 1055	5001 5050	21 C 1070	17.6	9.1	--	1	--	--	--	61 5	11	--	--	--	--	--
05/24/73 1020	5001 5050	20 C 4750	7.5	8.2	--	2	--	--	--	190 5	26	--	--	--	--	--
06/25/73 1210	5001 5050	22 C 3100	7.0	7.8	--	3	--	--	--	108 5	16	--	--	--	--	--
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD																
11/14/72 1515	5001 5001	11 C	7.1	7.4	--	3	--	--	6.0 R --	--	--	--	--	--	--	--
02/26/73 1545	5001 5050	13.0C	7.0	7.5	--	3	--	--	--	43 5	21	--	--	--	--	--
03/27/73 1440	5001 5050	15 C 990	8.5	7.5	--	3	--	--	--	40 5	6	--	--	--	--	--
04/26/73 1453	5001 5050	21 C 2540	9.1	8.3	--	3	--	--	--	87 5	22	--	--	--	--	--
05/24/73 1520	5001 5050	19 C 3100	8.1	8.3	--	3	--	--	--	175 5	38	--	--	--	--	--

TABLE D-4 (CONTINUED)
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH MBAS	DEPTH TURB	T+L CHLOR	0+G COLOR	ML/L MG/L	SET S	BOD SUS S	COD V SUS S	CYANIDE PHENOLS	TOC DOC	10010E T ODOR	BROMIOE SULFITE	T SULF O SULF	CC EXT CA EXT
E0 S 813.6 201.2					HILL SLOUGH AT GRIZZLY ISLAND ROAD					CONTINUED								
06/25/73 1620	S001 S050	24 3700	C	9.4 8.2	--	3	--	--	--	--	122 5	23	--	--	--	--	--	--
E3 2100.51					GREEN VALLEY CREEK AT COROELIA													
11/14/72 1115	S001 S001	13	C	9.6 7.6	--	3	--	--	--	--	2.0 8	--	--	--	--	--	--	--
02/26/73 1200	S001 S050	13	C	9.9 7.5	--	3	--	--	--	--	550 5	268	--	--	--	--	--	--
E5 1423.01					ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE													
04/06/73 1630	S050 S050	56 500	F	8.9	--	--	--	--	--	--	7 5	5	--	--	--	--	--	--
04/13/73 1330	S050 S050	60.0F 540	10.9	8.4	--	--	--	--	--	--	4 5	3	--	--	--	--	--	--

TABLE D-5

NUTRIENT ANALYSIS OF SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation
 5050 - Department of Water Resources
 5063 - Santa Cruz County Health Department

Abbreviations and Constituents

TIME - Pacific Standard Time on a 24-hour clock
 G.H. - Instantaneous gage height in feet above an established datum
 DISCH. - Instantaneous discharge in cubic feet per second
 TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)
 DEPTH - Depth in feet at which sample was collected
 PH - Measure of acidity (<7) or alkalinity (>7) of water
 EC - Electrical conductance in micromhos at 25° C
 TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hack Nephelometer (A)
 F-CO2 - Field determination of carbon dioxide in milligrams per liter
 CACO3 P - Field Alkalinity (Phenol)
 CACO3 T - Field Alkalinity (Total)
 HCO3 - Bicarbonate in milligrams per liter
 CO3 - Carbonate in milligrams per liter
 NH3 - Unfiltered ammonia
 NO2 - Unfiltered nitrite
 NO3 - Unfiltered nitrate
 F ORG N - Dissolved organic nitrogen
 U ORG N - Organic nitrogen
 F (NH3 + - Ammonia and dissolved organic nitrogen
 U ORN N) - Ammonia and organic nitrogen
 DIS
 A.H.PO4 - Dissolved acid hydrolyzable phosphate
 F H3PO4 - Dissolved orthophosphate
 U H3PO4 - Total orthophosphate
 F TOT P - Dissolved total phosphorus
 U TOT P - Total Phosphorus

TABLE D-5 (CONTINUED)

DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	EC	NUTRIENT ANALYSIS OF SURFACE WATER					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER						
						TURB	CAC03	P	MC03	NH3	NO2	F	ORG	N	F (NH3)	DIS	F H3PO4
						F-C02	CAC03	T	C03		NO3	U	ORG	N	U	A.H.P04	U H3PO4
																	F TOT P
																	U TOT P
D0 1100.00 BRANCIFORTE CREEK AT SANTA CRUZ																	
03/19/73	5063		50.0F	7.2	300						--	--	--	--	--	0.07	--
1415	5050									--	0.94	--	--	--	--	--	--
09/27/73	5050		62 F	7.7	450	1A			182		--	--	--	--	--	0.14	--
1330	5050	1 E	8.3	482					0	--	0.26	--	--	--	--	--	--
D0 1180.01 SAN LORENZO RIVER AT PARADISE PARK																	
03/19/73	5063		50.0F	7.5	335						--	--	--	--	--	0.07	--
1000	5050									--	0.18	--	--	--	--	--	--
09/27/73	5050		57 F	7.7	330	0A			134		--	--	--	--	--	0.14	--
1000	5050		8.3	376					0	--	0.26	--	--	--	--	--	--
D0 1220.01 ZAYANTE CREEK AT FELTON																	
03/19/73	5063		49.0F	7.4	415						--	--	--	--	--	0.22	--
1115	5050									--	0.34	--	--	--	--	--	--
09/27/73	5050		56 F	7.7	330	0A			125		--	--	--	--	--	0.35	--
1115	5050	7 E	8.1	374					0	--	0.44	--	--	--	--	--	--
D0 1498.01 SAN LORENZO RIVER AT BOULDER CREEK																	
03/19/73	5063		48.0F	7.2	195						--	--	--	--	--	0.02	--
1200	5050									--	0.08	--	--	--	--	--	--
09/27/73	5050		58 F	7.7	440	1A			165		--	--	--	--	--	0.06	--
1150	5050	5 E	8.2	485					0	--	0.04	--	--	--	--	--	--
D0 2020.00 APTOS CREEK BELOW VALENCIA CREEK																	
03/19/73	5063		48 F	7.7	440						--	--	--	--	--	0.09	--
1330	5050									--	0.28	--	--	--	--	--	--
09/27/73	5050		60 F	8.0	670	0A			247		--	--	--	--	--	0.19	--
1400	5050	1 E	8.5	778					13	--	0.13	--	--	--	--	--	--
D0 3100.00 SOQUEL CREEK AT SOQUEL																	
03/19/73	5063		49.0F	7.8	530						--	--	--	--	--	0.05	--
1300	5050									--	0.15	--	--	--	--	--	--
09/27/73	5050		2.72 72 F	8.0	650	4A			196		--	--	--	--	--	0.10	--
1330	5050		8.3	724					0	--	0.08	--	--	--	--	--	--
D0 4010.01 SCOTT CREEK AT HIGHWAY 1																	
03/19/73	5063		50.0F	6.8	225						--	--	--	--	--	0.02	--
0930	5050									--	0.16	--	--	--	--	--	--
09/27/73	5050		61 F	7.3	370	0A			103		--	--	--	--	--	0.05	--
1530	5050	2 E	8.3	311					0	--	0.05	--	--	--	--	--	--
D1 1250.00 PAJARO RIVER AT CHITTENDEN																	
07/18/73	5050	1.00	65 F	8.4	1400				531		--	--	--	--	--	0.12	--
0945	5050		8.1	1950					0	--	1.6	--	--	1.0	--	--	0.40
D1 1371.50 UVAS CREEK NR MORGAN HILL BL UVAS DAM																	
07/18/73	5050		65 F	8.2	250				171		--	--	--	--	--	0.00	--
1215	5050		8.1	314					0	--	0.04	--	--	0.3	--	--	0.05
D1 2450.00 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL																	
07/18/73	5050		80 F	8.4	850				418		--	--	--	--	--	0.00	--
1340	5050		8.5	876					17	--	0.02	--	--	0.6	--	--	0.07
D2 1006.60 MERRITT LAKE DRAIN AT PUMP																	
07/18/73	5050		64 F	8.2	1950				473		--	--	--	--	--	0.02	--
0820	5050		8.3	2950					0	--	0.00	--	--	4.2	--	--	0.39
08/14/73	5050		70 F	8.0	2890				525		--	--	--	--	--	0.10	--
0930	5050		8.1	2850					0	--	0.01	--	--	--	--	--	0.13
D2 1030.30 BLANCO DRAIN AT PUMP LIFT																	
07/18/73	5050		62 F	8.0	1350				375		--	--	--	--	--	1.4	--
0730	5050		8.1	1950					0	--	2.3	--	--	0.8	--	--	1.4
08/14/73	5050		65 F	8.2	2380				428		--	--	--	--	--	0.84	--
0800	5050		7.9	2370					0	--	23.	--	--	--	--	--	1.2
D2 1325.10 SALINAS RIVER NEAR GONZALES																	
07/17/73	5050		74 F	8.4	350				155		--	--	--	--	--	0.01	--
1215	5050		8.1	462					0	--	0.11	--	--	0.8	--	--	0.20
D2 1850.00 SALINAS RIVER NEAR BRADLEY																	
07/17/73	5050	4.79	70 F	8.4	220				123		--	--	--	--	--	0.01	--
1015	5050		8.3	294					0	--	0.09	--	--	0.3	--	--	0.03
D4 1200.00 CARMEL RIVER AT ROBLES DEL RIO																	
07/17/73	5050	3.53	72 F	8.4	700				186		--	--	--	--	--	0.00	--
1335	5050		8.2	731					0	--	0.03	--	--	0.2	--	--	0.00
E0 B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)																	
10/11/72	5050		65 F	7.9	45000	2A					--	--	--	--	--	0.29	--
0930	5050				48400					0.00	0.29	0.2	0.2	0.01	--	--	0.58
11/27/72	5050		57 F	7.9	38000	3A					--	--	--	--	--	0.26	--
1230	5050				43700					0.04	0.46	0.2	0.24	0.16	--	--	0.40
12/11/72	5050		48 F	7.9	40000	3A					--	--	--	--	--	0.25	--
1115	5050				42200					0.02	0.43	0.1	0.12	0.19	--	--	0.96

TABLE D-5 (CONTINUED)

NUTRIENT ANALYSIS OF SURFACE WATER																
DATE TIME	SAMP LAB	G.W. DISCH.	TEMP DEPTH	FIELD PH	LABORATORY EC	TURB F-CO2	FIELD		LAB HCO3 CO3	NH3	NUTRIENT CONSTITUENTS IN		MILLIGRAMS PER LITER		F TOT P U TOT P	
							CACO3	P			N02 N03	F ORG N U ORG N	F (NH3 + U ORG N)	DIS A.M.P04		F H3PO4 U H3PO4
FO B 735.0 215.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL) CONTINUED																
01/23/73 1130	5050 5050		49 F	7.9	28000 29300	2A					-- 0.17	-- 0.42	-- 0.0	-- 0.17	0.15 --	-- 0.17
02/06/73 1030	5050 5050		51 F	7.9	28000 28600	4A				0.13	-- 0.48	-- 0.1	-- 0.23	0.02	0.16 --	-- 0.22
03/20/73 0915	5050 5050		53 F	8.1	26000 26600	19A				0.18	-- 0.65	-- 0.0	-- 0.18	0.16	0.24 --	-- 0.41
04/05/73 0915	5050 5050		58 F	8.2	26000 27400	7A				0.01	-- 0.59	-- 0.1	-- 0.11	0.01	0.26 --	-- 0.36
05/03/73 0810	5050 5050		60 F	8.2	33000 36300	15A				0.01	-- 0.23	-- 0.4	-- 0.41	0.04	0.24 --	-- 0.39
06/18/73 1000	5050 5050		66 F	8.0	38000 41300	2A				0.00	-- 0.56	-- 0.3	-- 0.3	0.00	0.45 --	-- 0.68
07/30/73 0830	5050 5050		69 F	8.1	41000 44400	2A				0.00	-- 0.38	-- 0.3	-- 0.3	0.01	0.53 --	-- 0.85
08/14/73 0920	5050 5050		67 F	8.2	43000 43600	3A				0.03	-- 0.35	-- 0.0	-- 0.03	0.13	0.46 --	-- 0.59
09/13/73 0810	5050 5050		66 F	8.2	44000 46900	1A				0.07	-- 0.41	-- 0.3	-- 0.37	0.21	0.43 --	-- 0.69
FO B 736.2 212.0 SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)																
10/11/72 1100	5050 5050		65 F	7.9	45000 47500	3A				0.00	-- 0.32	-- 0.2	-- 0.2	0.00	0.38 --	-- 0.64
11/27/72 1330	5050 5050		57 F	8.1	40000 43600	4A				0.04	-- 0.48	-- 0.1	-- 0.14	0.13	0.29 --	-- 0.43
12/11/72 1200	5050 5050		45 F	8.0	41000 42300	4A				0.01	-- 0.42	-- 0.0	-- 0.01	0.14	0.24 --	-- 0.40
01/23/73 1220	5050 5050		49.6	7.9	32000 32600	6A				0.16	-- 0.47	-- 0.0	-- 0.16	0.00	0.18 --	-- 0.21
02/06/73 1100	5050 5050		51 F	7.9	28000 28100	4A				0.13	-- 0.51	-- 0.0	-- 0.13	0.03	0.18 --	-- 0.23
03/20/73 1015	5050 5050		53 F	8.0	26000 25700	53A				0.20	-- 0.74	-- 0.1	-- 0.3	0.24	0.22 --	-- 0.46
04/05/73 1005	5050 5050		59 F	8.2	26000 26800	17A				0.00	-- 0.62	-- 0.0	-- 0.0	0.00	0.28 --	-- 0.37
05/03/73 0900	5050 5050		60 F	8.2	34000 36400	10A				0.00	-- 0.19	-- 0.3	-- 0.3	0.00	0.19 --	-- 0.28
06/18/73 1045	5050 5050		66 F	8.0	40000 42500	3A				0.00	-- 0.31	-- 0.2	-- 0.2	0.00	0.29 --	-- 0.47
07/30/73 0930	5050 5050		70 F	8.1	43000 44500	8A				0.00	-- 0.33	-- 0.4	-- 0.4	0.04	0.48 --	-- 0.80
08/14/73 1000	5050 5050		66 F	8.0	44000 43900	21A				0.00	-- 0.29	-- 0.0	-- 0.0	0.15	0.40 --	-- 0.57
09/13/73 0910	5050 5050		64 F	8.2	45000 47400	2A				0.04	-- 0.28	-- 0.2	-- 0.24	0.08	0.36 --	-- 0.61
FO B 749.2 222.4 SAN FRANCISCO BAY AT TREASURE ISLAND																
10/11/72 0850	5050 5050		62 F	7.9	42000 45500	2A				0.00	-- 0.17	-- 0.2	-- 0.2	0.00	0.11 --	-- 0.16
11/27/72 1100	5050 5050		56 F	7.9	37500 40000	6A				0.07	-- 0.28	-- 0.1	-- 0.17	0.03	0.10 --	-- 0.16
12/11/72 1000	5050 5050		48 F	8.1	39000 40100	4A				0.10	-- 0.22	-- 0.1	-- 0.2	0.00	0.07 --	-- 0.14
01/23/73 1000	5050 5050		48 F	7.8	15000 16900	20A				0.02	-- 0.40	-- 0.0	-- 0.02	0.00	0.07 --	-- 0.15
02/06/73 0840	5050 5050		50 F	8.3	23000 23700	10A				0.07	-- 0.38	-- 0.0	-- 0.07	0.18	0.06 --	-- 0.23
03/20/73 0730	5050 5050		52 F	8.1	34000 36400	6A				0.07	-- 0.31	-- 0.1	-- 0.17	0.03	0.10 --	-- 0.13
04/05/73 0800	5050 5050		55 F	8.2	34000 37600	5A				0.02	-- 0.34	-- 0.2	-- 0.22	0.00	0.08 --	-- 0.16
05/03/73 0645	5050 5050		56 F	8.2	41000 45500	5A				0.02	-- 0.20	-- 0.2	-- 0.22	0.02	0.08 --	-- 0.11
06/18/73 0845	5050 5050		64 F	8.1	40000 45200	3A				0.00	-- 0.22	-- 0.1	-- 0.1	0.01	0.12 --	-- 0.22
07/30/73 0700	5050 5050		63 F	8.0	44000 47900	3A				0.00	-- 0.19	-- 0.3	-- 0.3	0.03	0.12 --	-- 0.25
08/14/73 0755	5050 5050		63 F	8.1	44000 48000	1A				0.08	-- 0.18	-- 0.0	-- 0.08	0.03	0.10 --	-- 0.16
09/13/73 0640	5050 5050		62 F	8.1	45000 47700	1A				0.06	-- 0.20	-- 0.2	-- 0.26	0.07	0.10 --	-- 0.18

TABLE D-5 (CONTINUED)

DATE TIME		SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD		NUTRIENT ANALYSIS OF SURFACE WATER					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER							F TOT P		
					LABORATORY PH	EC	TURB F-CO2	CACO3 CACO3	P T	HC03 CO3	NH3	N02 N03	F U	ORG N	F U	(NH3 + ORG N)	DIS A.H.P04	F U	H3P04 H3P04	F U	TOT TOT
EO B 801.8 222.3 SAN PABLO BAY NEAR PINOLE POINT																					
10/04/72	5001			17 C	8.0			3AF		124		--	0.200	--		--	--	--	--		
1300	5001			3	8.0	39300			0	0.05	0.13	0.20	0.25	--	0.08	0.12					
11/16/72	5001			14 C	7.8			4AF		102		--	0.300	--		--	--	--			
1010	5001			3	7.8	29700			0	0.13	0.23	0.30	0.43	--	0.08	0.13					
12/13/72	5001			8 C	7.0			8AF		101		--	--	--		--	--	--			
0930	5001			3	7.8	23200			0	0.15	0.35	0.20	0.35	--	0.10	0.10					
02/14/73	5001			11 C	7.8			38AF		87		--	0.300	--		0.06	--	--			
1200	5001			3	7.8	5800			0	0.11	0.55	0.30	0.41	--	--	0.16					
04/11/73	5001			15.0C	7.6	19100		7AF		112		--	--	--		0.09	--	--			
1115	5001			3	7.9	22400			0	0.06	0.39	--	--	--	--	0.13					
05/09/73	5001			15.0C	8.0	27500		9AF		119		--	--	--		0.07	--	--			
0925	5001			3	7.6	32000			0	0.04	0.16	--	--	--	--	0.11					
06/12/73	5001			20.0C	7.9	32800		9AF		121		--	--	0.30		0.10	--	--			
1430	5001			3	7.8	37300			0	0.09	0.23	--	--	--	--	0.14					
07/10/73	5001				7.9	41000		9AF		131		--	--	0.30		0.12	--	--			
1415	5001			3	7.9	42700			0	0.10	0.32	--	--	--	--	0.16					
08/07/73	5001			20.0C	7.9	38300		5AF		132		--	--	0.40		0.13	--	--			
1235	5001			3	8.1	42500			0	0.09	0.33	--	--	--	--	0.15					
09/05/73	5001			18.0C	7.9	38580		9AF		130		--	--	0.30		0.08	--	--			
1135	5001			3	8.0	42600			0	0.07	0.19	--	--	--	--	0.14					
EO B 802.7 207.0 SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES																					
10/18/72	5001			18 C	7.8			5AF		108		--	0.200	--		--	--	--			
1300	5001			3	7.8	23800			0	0.07	0.08	0.30	0.37	--	0.05	0.09					
11/16/72	5001			14 C	7.7			16AF		99		--	0.400	--		--	--	--			
1140	5001			3	7.7	20700			0	0.12	0.26	0.40	0.52	--	0.08	0.14					
12/13/72	5001			8 C	7.9			13AF		95		--	0.100	--		--	--	--			
1045	5001			3	7.8	17100			0	0.15	0.36	0.30	0.45	--	0.10	0.10					
01/15/73	5001			8 C	7.3			30AF		80		--	0.400	--		--	--	--			
1050	5001			3	7.6	7680			0	0.14	0.41	0.40	0.54	--	0.12	0.08					
02/14/73	5001			11 C	7.6			110AF		80		--	0.400	--		0.06	--	--			
1315	5001			3	7.7	310			0	0.11	0.52	--	--	--	--	0.21					
03/15/73	5001			12 C	7.8			34AF		86		--	--	0.20		0.05	--	--			
1130	5001			3	7.5	6990			0	0.06	0.38	--	--	--	--	0.12					
03/28/73	5001			12.0C	7.6	6900		20AF		91		--	--	0.40		0.07	--	--			
0940	5001			3	7.4	6670			0	0.10	0.47	--	--	--	--	0.11					
04/11/73	5001			16.0C	7.5	6900		38AF		98		--	--	0.30		0.08	--	--			
1240	5001			3	7.4	7670			0	0.07	0.42	--	--	--	--	0.08					
04/25/73	5001			16.0C	7.6	9800		16AF		98		--	--	0.30		0.02	--	--			
1005	5001			3	7.6	11400			0	0.04	0.15	--	--	--	--	0.10					
05/09/73	5001			17.0C	7.9	12350		21AF		78		--	--	0.30		0.08	--	--			
1110	5001			3	7.7	20900			0	0.06	0.18	--	--	--	--	0.12					
05/30/73	5001			19.0C	7.9	17300		21AF		78		--	--	0.30		0.08	--	--			
1510	5001			3	7.7	20900			0	0.06	0.18	--	--	--	--	0.12					
06/12/73	5001			21.0C	7.9	18000		8AF		102		--	--	0.40		0.08	--	--			
1600	5001			3	7.9	17000			0	0.10	0.23	--	--	--	--	0.11					
06/27/73	5001			22.0C	7.9	21500		13AF		103		--	--	0.20		0.07	--	--			
1410	5001			3	7.9	14600			0	0.10	0.21	--	--	--	--	0.11					
07/11/73	5001			21.0C	8.1	22740		18AF		108		--	--	0.20		0.10	--	--			
1355	5001			3	8.0	24200			0	0.07	0.22	--	--	--	--	0.19					
08/07/73	5001			20.0C	8.1	23200		18AF		108		--	--	0.40		0.09	--	--			
1410	5001			3	8.1	24500			0	0.08	0.16	--	--	--	--	0.13					
08/22/73	5001			19.0C	7.9	21320		14AF		103		--	--	0.30		0.10	--	--			
1100	5001			3	7.9	22500			0	0.08	0.13	--	--	--	--	0.14					
09/05/73	5001			18.0C	8.0	21840		11AF		103		--	--	0.30		0.06	--	--			
1305	5001			3	8.1	22900			0	0.07	0.13	--	--	--	--	0.14					
09/19/73	5001			19.0C	8.0	14850		15AF		98		--	--	0.30		0.10	--	--			
0935	5001			3	7.9	17600			0	0.08	0.20	--	--	--	--	0.16					
EO B 802.8 155.0 SACRAMENTO RIVER AT CHIPPS ISLAND																					
10/18/72	5001			18 C	7.7			29AF		82		--	0.200	--		--	--	--			
1420	5001			3	7.8	5750			0	0.09	0.13	0.40	0.49	--	0.06	0.13					
11/15/72	5001			13 C	7.7			34AF		72		--	0.300	--		--	--	--			
1110	5001			3	7.5	2500			0	0.07	0.26	0.50	0.57	--	0.07	0.15					
12/12/72	5001			7 C	7.7			21AF		74		--	0.300	--		--	--	--			
0910	5001			3	7.7	429			0	0.08	0.36	0.40	0.48	--	0.07	0.10					
01/15/73	5001			8 C	7.0			80AF		58		--	0.600	--		--	--	--			
1200	5001			3	7.4	175			0	0.11	0.64	0.60	0.71	--	0.06	0.15					
02/13/73	5001			11 C	7.8			110AF		73		--	0.300	--		0.06	--	--			
1240	5001			3	7.6	205			0	0.08	0.55	0.40	0.48	--	--	0.20					
03/15/73	5001			12 C	8.0			37AF		83		--	--	0.40		0.05	--	--			
1245	5001			3	7.3	254			0	0.07	0.48	--	--	--	--	0.13					
03/28/73	5001			12.0C	7.6	265		40AF		83		--	--	0.40		0.05	--	--			
1100	5001			3	7.7	246			0	0.07	0.34	--	--	--	--	0.13					
04/11/73	5001			16.0C	7.5	350		32AF		93		--	--	0.30		0.07	--	--			
1345	5001			3	7.5	352			0	0.03	0.42	--	--	--	--	0.10					

TABLE D-5 (CONTINUED)

NUTRIENT ANALYSIS OF SURFACE WATER																			
DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD		FIELD		LAB MC03 CO3	NH3	NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER									
				LABORATORY PH	EC	TURB F-CO2	CAC03 P			T	N02 N03	F U	ORG N	F U	(NH3 N)	DIS A.M.P04	F U	H3P04 H3P04	F U
E0 B 802.8 155.0 SACRAMENTO RIVER AT CHIPPE ISLAND CONTINUED																			
04/25/73	5001		16.0C	8.2	445	32AF		89	--	--	0.30			0.06	--				
1200	5001		3	7.7	416			0	0.03	0.23	--	--	--	--	--	--	--	0.10	
05/09/73	5001		18.0C	8.1	1930	33AF		85	--	--	0.10			0.06	--				
1225	5001		3	7.9	2140			0	0.04	0.11	--	--	--	--	--	--	--	0.10	
05/30/73	5001		21.0C	7.8	2500	48AF		70	--	--	0.30			0.07	--				
1640	5001		3	8.5	2550			4	0.06	0.23	--	--	--	--	--	--	--	0.18	
06/12/73	5001		22.0C	7.9	2890	45AF		82	--	--	0.30			0.08	--				
1710	5001		3	8.0	2790			0	0.07	0.32	--	--	--	--	--	--	--	0.15	
06/27/73	5001		23.0C	8.0	6300	31AF		82	--	--	0.30			0.07	--				
1530	5001		3	7.6	6630			0	0.05	0.30	--	--	--	--	--	--	--	0.15	
07/11/73	5001		23.0C	8.1	8571	48AF		87	--	--	0.30			0.08	--				
1530	5001		3	8.2	8800			0	0.05	0.23	--	--	--	--	--	--	--	0.25	
07/31/73	5001		25 C	7.8	370	18AF		73	--	--	0.20			0.06	--				
1340	5001		3					0	0.02	0.03	--	--	--	--	--	--	--	0.14	
08/07/73	5001		20.0C	9.3	8170	37AF		85	--	--	0.40			0.07	--				
1525	5001		3	8.2	8830			0	0.06	0.14	--	--	--	--	--	--	--	0.18	
08/22/73	5001		20.0C	7.9	6920	60AF		86	--	--	0.20			0.07	--				
1220	5001		3	8.0	7460			0	0.03	0.12	--	--	--	--	--	--	--	0.20	
09/05/73	5001		19.0C	8.1	5542	38AF		85	--	--	0.30			0.05	--				
1425	5001		3	8.3	6050			0	0.05	0.15	--	--	--	--	--	--	--	0.17	
09/19/73	5001		20.0C	8.1	1940	50AF		86	--	--	--			--	--	--	--	--	
1050			3	7.8	2110			0	0.07	0.23	--	--	--	--	--	--	--	--	
E0 B 803.5 217.0 SAN PABLO BAY NEAR RODEO																			
10/04/72	5001		19 C	8.0		6AF		930	--	0.200	--			--	--			--	
1350	5001		3	7.9	31800			0	0.05	0.14	0.20	0.25	--	--	--	--	0.08	--	0.11
11/16/72	5001		14 C	7.8		10AF		101	--	0.300	--			--	--			--	
1055	5001		3	7.8	24900			0	0.17	0.27	0.30	0.47	--	--	--	--	0.08	--	0.14
12/13/72	5001		8 C	7.9		12AF		100	--	0.200	--			--	--			--	
1005	5001		3	7.9	21100			0	0.16	0.36	0.30	0.46	--	--	--	--	0.10	--	0.10
02/14/73	5001		11 C	7.6		50AF		86	--	0.400	--			0.06	--			--	
1230	5001		3	7.7	5000			0	0.12	0.52	0.40	0.52	--	--	--	--	--	0.12	
04/11/73	5001		16.0C	7.6	15200	10AF		106	--	--	0.20			0.08	--			--	
1150	5001		3	7.3	17600			0	0.06	0.36	--	--	--	--	--	--	--	0.08	
05/09/73	5001		16.0C	8.0	20700	16AF		112	--	--	--			0.06	--			--	
1010	5001		3	7.6	23800			0	0.05	0.13	--	--	--	--	--	--	--	0.11	
06/12/73	5001		20.0C	7.9	27800	26AF		112	--	--	0.60			0.10	--			--	
1510	5001		3	7.8	21800			0	0.10	0.23	--	--	--	--	--	--	--	0.16	
07/11/73	5001		20.0C	7.9	31920	31AF		121	--	--	0.30			0.08	--			--	
1305	5001		3	7.9	35200			0	0.08	0.36	--	--	--	--	--	--	--	0.13	
08/07/73	5001		19.0C	7.9	33400	17AF		124	--	--	0.40			0.13	--			--	
1310	5001		3	8.1	37200			0	0.10	0.31	--	--	--	--	--	--	--	0.17	
09/05/73	5001		18.0C	7.8	32500	29AF		121	--	--	0.40			0.11	--			--	
1210	5001		3	7.9	36300			0	0.11	0.28	--	--	--	--	--	--	--	0.20	
E0 B 803.6 159.3 SUISUN BAY OFF MIDDLE POINT																			
03/28/73	5001		12.0C	7.7	305	33AF		84	--	--	0.40			0.06	--			--	
1030	5001		3	7.7	279			0	0.05	0.45	--	--	--	--	--	--	--	0.12	
04/25/73	5001		17.0C	8.4	1480	15AF		89	--	--	0.30			0.06	--			--	
1130	5001		3	7.9	1060			0	0.04	0.45	--	--	--	--	--	--	--	0.06	
05/30/73	5001		21.0C	8.0	6000	46AF		73	--	--	0.40			0.07	--			--	
1615	5001		3	8.5	6310			5	0.05	0.19	--	--	--	--	--	--	--	0.18	
06/27/73	5001		23.0C	8.0	9200	24AF		86	--	--	0.50			0.09	--			--	
1505	5001		3	7.5	9200			0	0.06	0.32	--	--	--	--	--	--	--	0.13	
08/22/73	5001		20.0C	7.4	8640	45AF		87	--	--	0.20			0.06	--			--	
1150	5001		3	8.0	9820			0	0.01	0.07	--	--	--	--	--	--	--	0.17	
09/19/73	5001		19.0C	8.2	3950	45AF		88	--	--	0.20			0.09	--			--	
1025	5001		3	8.0	4090			0	0.05	0.22	--	--	--	--	--	--	--	0.19	
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT																			
03/15/73	5001		12 C	7.9		40AF		82	--	--	0.30			0.05	--			--	
1200	5001		3	7.5	1150			0	0.06	0.43	--	--	--	--	--	--	--	0.12	
03/28/73	5001		12.0C	7.9	690	33AF		80	--	--	0.30			0.06	--			--	
1005	5001		3	7.8	739			0	0.05	0.44	--	--	--	--	--	--	--	0.13	
04/11/73	5001		16.0C	7.6	1750	39AF		95	--	--	0.20			--	--			--	
1305	5001		3	7.6	1960			0	0.06	0.45	--	--	--	--	--	--	--	0.08	
04/25/73	5001		16.0C	8.0	6300	26AF		95	--	--	0.40			0.06	--			--	
1045	5001		3	7.8	7160			0	0.06	0.33	--	--	--	--	--	--	--	0.09	
05/09/73	5001		17.0C	8.0	7640	46AF		95	--	--	0.40			0.06	--			--	
1140	5001		3	7.7	8860			0	0.10	0.16	--	--	--	--	--	--	--	0.19	
05/30/73	5001		20.0C	8.1	8900	66AF		80	--	--	0.40			0.07	--			--	
1545	5001		3	8.4	9580			4	0.06	0.19	--	--	--	--	--	--	--	0.26	
06/12/73	5001		21.0C	7.9	11250	37AF		93	--	--	0.20			0.07	--			--	
1625	5001		3	7.9	10200			0	0.07	0.23	--	--	--	--	--	--	--	0.18	
06/27/73	5001		22.0C	7.9	16250	25AF		96	--	--	0.30			0.09	--			--	
1440	5001		3	7.6	14500			0	0.07	0.30	--	--	--	--	--	--	--	0.15	

TABLE D-5 (CONTINUED)

NUTRIENT ANALYSIS OF SURFACE WATER																	
DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	EC	FIELD			LAB HC03 CO3	NH3	NUTRIENT		CONSTITUENTS IN MILLIGRAMS PER LITER				F TOT P U TOT P
						TURB F-CO2	CAC03 P	CAC03 T			N02 N03	F ORG N U ORG N	F (NH3 + U (NH3 + N)	DIS A.H.P04	F H3P04 U H3P04		
E0 B 804.0 203.0 SUISUN BAY NEAR PRESTON POINT CONTINUED																	
07/11/73 1420	5001 5001		22.0C 3	8.3 8.2	17240 18300	33AF			100 0		-- 0.06	-- 0.13	-- --	0.30 --	-- --	0.08 --	-- 0.20
08/07/73 1440	5001 5001		20.0C 3	8.4 8.2	16400 17500	33AF			90 0		-- 0.04	-- 0.10	-- --	0.50 --	-- --	0.07 --	-- 0.19
08/22/73 1130	5001 5001		20.0C 3	8.0 7.9	14080 16200	31AF			95 0		-- 0.03	-- 0.07	-- --	0.30 --	-- --	0.08 --	-- 0.13
09/05/73 1330	5001 5001		18.0C 3	8.1 8.3	12600 13400	45AF			92 0		-- 0.03	-- 0.10	-- --	0.30 --	-- --	0.04 --	-- 0.18
09/19/73 1000	5001 5001		19.0C 3	8.1 7.9	12120 12700	50AF			93 0		-- 0.07	-- 0.18	-- --	0.30 --	-- --	0.09 --	-- 0.28
E0 B 804.4 156.2 HONKER BAY NEAR WHEELER POINT																	
10/18/72 1410	5001 5001		18 C 3	7.6 7.6		30AF			84 0		-- 0.08	-- 0.12	0.300 0.30	-- 0.38	-- --	-- 0.05	-- 0.12
11/15/72 1055	5001 5001		13 C 3	7.7 7.6		31AF			73 0		-- 0.11	-- 0.28	0.400 0.40	-- 0.51	-- --	-- 0.07	-- 0.14
12/12/72 0845	5001 5001		6 C 3	7.8 7.7		21AF			74 0		-- 0.08	-- 0.35	0.300 0.50	-- 0.58	-- --	-- 0.07	-- 0.10
02/13/73 1210	5001 5001		11 C 3	8.0 7.5		110AF			72 0		-- 0.07	-- 0.44	0.040 0.40	-- 0.47	-- --	0.06 --	-- 0.19
03/15/73 1230	5001 5001		11 C 3	8.0 7.5		50AF			89 0		-- 0.05	-- 0.35	-- --	0.14 --	-- --	0.05 --	-- 0.12
03/29/73 1050	5001 5001		12.0C 3	7.7 7.8	252 236	27AF			86 0		-- 0.06	-- 0.29	-- --	0.30 --	-- --	0.05 --	-- 0.11
04/12/73 1130	5001 5001		15.0C 3	7.6 7.6	403 372	33AF			92 0		-- 0.05	-- 0.42	-- --	0.30 --	-- --	0.07 --	-- 0.10
04/26/73 1020	5001 5001		17.0C 3	8.3 7.8	2220 1950	22AF			89 0		-- 0.04	-- 0.22	-- --	0.30 --	-- --	0.05 --	-- 0.08
05/10/73 1020	5001 5001		18.0C 3	8.0 7.7	2480 2700	45AF			85 0		-- 0.05	-- 0.11	-- --	0.10 --	-- --	0.06 --	-- 0.19
05/31/73 1455	5001 5001		20.0C 3	7.7 8.9	2180 1890	68AF			55 13		-- 0.06	-- 0.24	-- --	0.20 --	-- --	0.07 --	-- 0.23
06/13/73 1545	5001 5001		21.0C 3	7.8 7.9	3300 3160	75AF			85 0		-- 0.08	-- 0.33	-- --	0.20 --	-- --	0.08 --	-- 0.21
06/26/73 1330	5001 5001		23.0C 3	7.8 8.0	6700 6810	84AF			84 0		-- 0.04	-- 0.24	-- --	0.30 --	-- --	0.05 --	-- 0.16
07/11/73 1505	5001 5001		22.0C 3	8.2 8.0	9680 10300	80AF			88 0		-- 0.05	-- 0.20	-- --	0.50 --	-- --	0.07 --	-- 0.34
08/08/73 1350	5001 5001		20.0C 3	8.2 8.0	8430 9850	90AF			84 0		-- 0.05	-- 0.12	-- --	0.50 --	-- --	0.07 --	-- 0.29
08/23/73 1300	5001 5001		21.0C 3	7.7 7.7	7420 8680	84AF			84 0		-- 0.03	-- 0.10	-- --	0.20 --	-- --	0.07 --	-- 0.29
09/06/73 1305	5001 5001		19.0C 3	8.0 8.2	5830 5860	55AF			83 0		-- 0.05	-- 0.21	-- --	0.40 --	-- --	0.08 --	-- 0.21
09/20/73 1050	5001 5001		20.0C 3	8.0 7.8	2220 2310	60AF			86 0		-- 0.04	-- 0.23	-- --	0.20 --	-- --	0.09 --	-- 0.23
E0 B 805.3 226.3 SAN PABLO BAY NEAR MOUTH OF PETALUMA RIVER																	
10/04/72 1225	5001 5001		18 C 3	7.9 8.1		7AF			116 0		-- 0.01	-- 0.03	0.200 0.20	-- 0.21	-- --	-- 0.11	-- 0.12
11/16/72 0940	5001 5001		12 C 3	7.6 7.8		38AF			103 0		-- 0.17	-- 0.40	0.500 0.50	-- 0.67	-- --	-- 0.15	-- 0.20
12/13/72 0905	5001 5001		4 C 3	7.9 7.8		28AF			98 0		-- 0.15	-- 0.44	0.300 0.30	-- 0.45	-- --	-- 0.09	-- 0.11
02/14/73 1135	5001 5001		11 C 3	7.9 7.8		50AF			82 0		-- 0.21	-- 0.75	0.400 0.50	-- 0.71	-- --	0.13 --	-- 0.18
04/11/73 1010	5001 5001		17.0C 3	7.9 7.4	18200 20500	26AF			106 0		-- 0.01	-- 0.19	-- --	0.10 --	-- --	0.07 --	-- 0.10
05/09/73 0845	5001 5001		16.0C 3	8.3 7.6	26500 30700	21AF			117 0		-- 0.00	-- 0.01	-- --	0.00 --	-- --	0.02 --	-- 0.15
06/12/73 1350	5001 5001		21.0C 3	7.9 7.7	27800 31400	60AF			112 0		-- 0.03	-- 0.05	-- --	0.10 --	-- --	0.11 --	-- 0.22
07/10/73 1325	5001 5001		21.0C 3	8.0 7.8	36000 37900	78AF			124 0		-- 0.07	-- 0.47	-- --	0.30 --	-- --	0.16 --	-- 0.35
08/07/73 1200	5001 5001		20.0C 3	7.7 7.7	33500 39500	20AF			129 0		-- 0.06	-- 0.39	-- --	0.50 --	-- --	0.16 --	-- 0.21
09/05/73 1050	5001 5001		18.0C 3	7.8 7.8	34700 38400	65AF			123 0		-- 0.03	-- 0.26	-- --	0.30 --	-- --	0.10 --	-- 0.28
E0 B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																	
10/18/72 1215	5001 5001		18 C 3	7.5 7.3		27AF			90 0		-- 0.08	-- 0.12	0.300 0.40	-- 0.48	-- --	-- 0.04	-- 0.12
11/15/72 1010	5001 5001		14 C 3	7.1 7.0		45AF			79 0		-- 0.16	-- 0.28	0.400 0.50	-- 0.66	-- --	-- 0.07	-- 0.20
12/12/72 0800	5001 5001		6 C 3	7.1 7.7		38AF			77 0		-- 0.13	-- 0.39	0.400 0.50	-- 0.63	-- --	-- 0.08	-- 0.11

TABLE D-5 (CONTINUED)

DATE TIME		SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	EC	NUTRIENT ANALYSIS OF SURFACE WATER					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER									
							TURB F-CO2	CAC03	P T	LAB HC03 CO3	NH3	N02 N03	F ORG N U ORG N	F (NH3 + U ORG N)	OIS A.H.P04	F H3P04 U H3P04	F TOT P U TOT P				
FO B 807.0 202.3 GRIZZLY BAY AT DOLPHIN NEAR SUISUN SLOUGH																	CONTINUED				
02/13/73 1130	5001 5001		11 C 3	7.4 7.8			100AF 180			76 0		-- 0.08	0.300 0.50	-- 0.58			0.06 --	-- 0.22			
03/15/73 1005	5001 5001		11 C 3	7.5 7.6			83AF 222			83 0		-- 0.04	-- 0.35	-- --			0.05 --	-- 0.12			
03/29/73 1000	5001 5001		12.0C 3	7.7 7.6			320 292	55AF		86 0		-- 0.05	-- 0.38	-- --			0.06 --	-- 0.15			
04/12/73 1040	5001 5001		16.0C 3	7.7 7.6			1210 1120	55AF		93 0		-- 0.07	-- 0.46	-- --			0.07 --	-- 0.10			
04/26/73 0940	5001 5001		17.0C 3	8.0 7.7			4920 5450	26AF		95 0		-- 0.04	-- 0.19	-- --			0.04 --	-- 0.08			
05/10/73 0935	5001 5001		17.0C 3	8.0 7.7			5400 5820	50AF		89 0		-- 0.09	-- 0.18	-- --			0.07 --	-- 0.20			
05/31/73 1415	5001 5001		20.0C 3	7.9 7.7			7600 8130	76AF		82 0		-- 0.05	-- 0.17	-- --			0.07 --	-- 0.27			
06/13/73 1345	5001 5001		20.0C 3	7.8 7.9			7330 8000	37AF		90 0		-- 0.12	-- 0.28	-- --			0.08 --	-- 0.16			
06/27/73 1330	5001 5001		23.0C 3	7.6 7.5			12600 13100	37AF		83 0		-- 0.04	-- 0.21	-- --			0.06 --	-- 0.18			
08/08/73 1145	5001 5001		19.0C 3	8.0 8.0			13600 15200	80AF		92 0		-- 0.03	-- 0.06	-- --			0.06 --	-- 0.30			
09/06/73 1050	5001 5001		18.0C 3	8.0 8.0			9040 9340	45AF		86 0		-- 0.03	-- 0.17	-- --			0.08 --	-- 0.19			
09/19/73 0850	5001 5001		19.0C 3	7.9 7.9			6348 7090	50AF		89 0		-- 0.04	-- 0.15	-- --			0.08 --	-- 0.25			
FO S 809.2 205.3 CORDELIA SLOUGH AT CYGNUS																					
11/14/72 0940	5001 5001		11 C 3	7.1			5250 4350	34AF				.20 .23	-- 1.30	-- 1.5			-- .03	-- .08			
01/29/73 1010	5001 5001		8 C 3	7.0			998	80AF				.17 .46	.60 .80	-- 0.97			-- .04	-- .14			
02/26/73 1045	5001 5001		13 C 3	7.4			1020	70AF				.14 .46	.50 .80	-- 0.94			-- .04	-- .17			
03/27/73 0920	5001 5001		13 C 3	7.2 7.3			1780 1810	40AF		114 0		-- .16	-- .45	-- --			-- .03	-- .15			
04/26/73 0905	5001 5001		19 C 3	7.7 7.8			1290 1330	75AF		100 0		-- .02	-- .29	-- --			-- .05	-- .18			
05/24/73 0920	5001 5001		19 C 3	7.9 7.8			5800 6530	42AF		97 0		-- .01	-- .15	-- --			-- .04	-- .19			
06/25/73 1125	5001 5001		24 C 3	7.5 7.8			6600 6730	44AF		96 0		-- .04	-- .18	-- --			-- .06	-- .23			
07/23/73 0940	5001 5001		19 C 3	7.9 7.9			12980 13600	33AF		100 0		-- 0.03	-- 0.03	-- --			-- 0.04	-- 0.16			
08/20/73 0845	5001 5001		20.0C 3	6.8 7.8			11600 13200	55AF		91 0		-- 0.03	-- 0.04	-- --			-- 0.04	-- 0.23			
09/18/73 0940	5001 5001		19 C 3	7.9 7.9			9600 9730	62AF		96 0		-- 0.05	-- 0.05	-- --			-- 0.05	-- 0.23			
FO S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND																					
11/14/72 1330	5001 5001		12 C 3	7.4			8020 7270	70AF				.32 .42	-- 1.20	-- 1.52			-- .18	-- .20			
02/13/73 1040	5001 5001		11 C 3	6.8 7.7			945	65AF		102 0		-- .26	.60 1.15	-- .60			-- .05	-- .21			
02/26/73 1415	5001 5001		13 C 3	7.5			1090	80AF				.16 .61	.50 .90	-- 1.06			-- .06	-- .27			
03/27/73 1305	5001 5001		14 C 3	7.3 7.4			1720 1750	32AF		162 0		-- .23	-- .75	-- --			-- .07	-- .20			
04/12/73 0950	5001 5001		17.0C 3	7.4 7.7			1330 1310	75AF		114 0		-- .12	-- .53	-- --			-- .05	-- .13			
04/26/73 1310	5001 5001		20 C 3	8.1 7.8			1660 1690	60AF		142 0		-- .03	-- .62	-- --			-- .07	-- .22			
05/10/73 0845	5001 5001		18.0C 3	7.7 7.7			3700 4050	70AF		114 0		-- 0.10	-- 0.83	-- --			-- 0.05	-- 0.27			
05/24/73 1340	5001 5001		19 C 3	8.3 8.0			3880 4250	60AF		148 0		-- .02	-- .10	-- --			-- .07	-- .40			
06/13/73 1230	5001 5001		21.0C 3	7.7 7.9			4700 4540	75AF		122 0		-- .10	-- .20	-- --			-- .06	-- .30			
06/25/73 1455	5001 5001		24 C 3	7.9 7.9			5900 5380	38AF		127 0		-- .07	-- .19	-- --			-- .07	-- .25			
07/23/73 1345	5001 5001		20 C 3	8.1 8.1			9259 10100	27AF		138 0		-- 0.03	-- 0.08	-- --			-- 0.07	-- 0.27			
08/08/73 1030	5001 5001		20 C 3	7.4 8.1			10700 12600	60AF		110 0		-- 0.05	-- 0.07	-- --			-- 0.04	-- 0.25			
08/20/73 1300	5001 5001		20 C 3	7.8 8.1			10500 11300	32AF		128 0		-- 0.01	-- 0.03	-- --			-- 0.07	-- 0.19			
09/06/73 1140	5001 5001		19.0C 3	7.7 8.2			11200 11700	30AF		101 0		-- 0.05	-- 0.05	-- --			-- 0.03	-- 0.14			

TABLE D-5 (CONTINUED)
NUTRIENT ANALYSIS OF SURFACE WATER

DATE TIME		SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD		NUTRIENT ANALYSIS OF SURFACE WATER				NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER							
					LABORATORY PH	EC	TURB F-CO2	CACO3 CACO3 T	P CO3	HC03 CO3	NH3	N02 N03	F ORG N U ORG N	F (NH3 + U ORG N)	D15 A.H.P04	F H3P04 U H3P04	F TOT P U TOT P	
E0 S 810.8 202.8 SUISUN SLOUGH AT VOLANTI SLOUGH ON JOICE ISLAND CONTINUED																		
09/18/73	5001			20	C	8.1	10000	33AF		119		--	--	0.30		0.07	--	
1235	5001			3		8.0	10200			0	0.03	0.02	--	--	--	--	0.24	
E0 S 811.0 204.8 CHADBOURNE SLOUGH AT CHADBOURNE ROAD																		
11/14/72	5001			11	C	7.1	800	950AF				--	--	--		--	--	
1230	5001			3			466				.29	.94	2.60	2.89	--	.05	.44	
01/29/73	5001			8	C			60AF				--	.90	--		--	--	
1150	5001			3			1400				.30	.73	.90	1.2	--	.05	.15	
02/26/73	5001			13	C	7.3		21AF				--	.30	--		.02	--	
1300	5001			3			949				.20	1.40	.60	0.8	--	--	.07	
03/27/73	5001			15	C	7.3	1320	30AF		171		--	--	.60		.02	--	
1135	5001			3		7.4	1340			0	.21	.95	--	--	--	--	.10	
04/26/73	5001			22	C	8.1	1520	50AF		148		--	--	.80		.02	--	
1155	5001			3		7.8	1550			0	.02	.40	--	--	--	--	.17	
05/24/73	5001			20	C	7.8	3900	60AF		144		--	--	.60		.01	--	
1140	5001			3		8.0	4290			0	.09	.40	--	--	--	--	.24	
06/25/73	5001			23	C	7.6	6500	37AF		108		--	--	.30		.03	--	
1320	5001			3		7.8	6300			0	.06	.11	--	--	--	--	.19	
06/25/73	5001			22	C	8.0	4600	34AF		149		--	--	.50		.02	--	
1545	5001			1		8.2	4330			0	.03	.49	--	--	--	--	.15	
07/23/73	5001			20	C	7.7	8928	32AF		129		--	--	0.30		0.02	--	
1215	5001			3		8.0	10200			0	0.04	0.25	--	--	--	--	0.16	
08/20/73	5001			19.0C	7.3		10300	40AF		95		--	--	0.50		0.01	--	
1130	5001			3		7.7	12800			0	0.03	0.05	--	--	--	--	0.15	
09/18/73	5001			18	C	7.6	10000	30AF		100		--	--	0.30		0.02	--	
1125	5001			3		7.7	9730			0	0.12	0.09	--	--	--	--	0.12	
E0 S 811.2 158.5 MONTEZUMA SLOUGH AT GRIZZLY ISLAND ROAD																		
11/14/72	5001			13	C	7.4		25AF				--	--	--		--	--	
1435	5001			3			7270				.28	.17	1.00	1.28	--	.03	.12	
01/29/73	5001			8	C			75AF				--	.80	--		--	--	
1335	5001			3			1070				.16	.44	1.00	1.16	--	.03	.14	
02/26/73	5001			13	C	7.4		55AF				--	.40	--		.03	--	
1520	5001			3			632				.13	.33	.50	0.63	--	--	.13	
03/27/73	5001			13	C	7.1	950	27AF		95		--	--	.60		.03	--	
1405	5001			3		7.3	962			0	.10	.35	--	--	--	--	.11	
04/26/73	5001			20	C	8.0	1660	55AF		123		--	--	.80		.02	--	
1405	5001			3		7.6	1690			0	.03	.22	--	--	--	--	.16	
05/24/73	5001			19	C	7.8	3320	40AF		104		--	--	.70		.02	--	
1440	5001			3		7.8	3680			0	.07	.14	--	--	--	--	.21	
06/25/73	5001			23	C	7.8	5600	29AF		105		--	--	.40		.03	--	
1543	5001			3		7.9	5160			0	.05	.10	--	--	--	--	.16	
07/23/73	5001			20	C	8.0	8109	22AF		106		--	--	0.30		0.02	--	
1430	5001			3		8.1	8870			0	0.01	0.02	--	--	--	--	0.14	
08/20/73	5001			22.0C	7.8		9800	24AF		110		--	--	0.40		0.03	--	
1350	5001			3		7.9	10300			0	0.02	0.03	--	--	--	--	0.13	
09/18/73	5001			20	C	8.0	10700	30AF		101		--	--	0.40		0.03	--	
1315	5001			3		8.2	10400			0	0.03	0.01	--	--	--	--	0.13	
E0 S 811.5 207.2 CORDELIA SLOUGH AT UPPER END																		
03/27/73	5001			14	C	7.7	575	32AF		170		--	--	.30		.05	--	
1025	5001			3		7.8	597			0	.05	.45	--	--	--	--	.10	
04/26/73	5001			21	C	9.1	1070	18AF		201		--	--	.40		.02	--	
1055	5001			1		8.2	1130			0	.01	.03	--	--	--	--	.10	
05/24/73	5001			20	C	8.2	4750	75AF		163		--	--	.40		.07	--	
1020	5001			2		8.5	4580			4	.06	.21	--	--	--	--	.28	
06/25/73	5001			22	C	7.8	3100	65AF		180		--	--	.50		.03	--	
1210	5001			3		8.1	2870			0	.04	.02	--	--	--	--	.25	
07/23/73	5001			20	C	8.1	593	60AF		173		--	--	0.20		0.05	--	
1100	5001			3		8.5	669			5	0.03	0.10	--	--	--	--	0.23	
08/20/73	5001			20.0C	7.6		6200	65AF		168		--	--	0.60		0.02	--	
1015	5001			3		8.0	7060			0	0.02	0.07	--	--	--	--	0.25	
09/18/73	5001			19	C	8.2	550	84AF		170		--	--	0.40		0.04	--	
1030	5001			2		8.5	527			0	0.15	0.07	--	--	--	--	0.15	
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD																		
11/14/72	5001			11	C	7.4		120AF				--	--	--		--	--	
1515	5001			3			834				.89	.46	1.40	2.29	--	.62	.77	
01/29/73	5001			8	C			55AF				--	.90	--		--	--	
1415	5001			3			1160				.34	.68	1.20	1.54	--	.16	.33	
02/26/73	5001			13.0C	7.5			32AF				--	1.00	--		.21	--	
1545	5001			3			1870				.29	.66	1.20	1.49	--	--	.50	
03/27/73	5001			15	C	7.5	990	45AF		194		--	--	.60		.14	--	
1440	5001			3		7.7	1010			0	.12	.30	--	--	--	--	.30	
04/26/73	5001			21	C	8.3	2540	60AF		263		--	--	1.10		.29	--	
1453	5001			3		8.0	2570			0	.02	1.15	--	--	--	--	.71	

TABLE D-5 (CONTINUED)

NUTRIENT ANALYSIS OF SURFACE WATER																					
DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD		FIELD		LAB HC03 CO3	NH3	NUTRIENT		CONSTITUENTS IN MILLIGRAMS PER LITER				DIS		F H3PO4		F TOT P	
				PH	EC	TURB F-CO2	CAC03 CAC03			P T	N02	N03	F ORG N	U ORG N	F (NH3 + U ORG N)	A.H.P04	F H3PO4 U H3PO4	F TOT P U TOT P			
E0 S 813.6 201.2 HILL SLOUGH AT GRIZZLY ISLAND ROAD CONTINUED																					
05/24/73	5001		19	C	8.3	3100	120AF	248		--	--	1.20				.24	--				
1520	5001		3		8.0	2890		0	.04	.06	--	--	--	--	--	--	.92				
06/25/73	5001		24	C	8.2	3700	65AF	231		--	--	.90				.26	--				
1620	5001		3		8.2	3350		0	.06	.32	--	--	--	--	--	--	.74				
07/23/73	5001		20	C	7.9	3765	55AF	212		--	--	0.80				0.26	--				
1500	5001		3		8.2	4180		0	0.10	0.36	--	--	--	--	--	--	0.56				
08/20/73	5001		24.0C		8.7	11000	55AF	208		--	--	0.70				0.31	--				
1440	5001		3		7.9	7350		0	0.02	0.24	--	--	--	--	--	--	0.60				
09/18/73	5001		19	C	8.3	8700	39AF	190		--	--	0.30				0.36	--				
1345	5001		3		8.3	8290		0	0.03	0.05	--	--	--	--	--	--	0.61				
E3 2100.51 GREEN VALLEY CREEK AT CORDELIA																					
11/14/72	5001		13	C	7.6		65AF			--	--	--				--	--				
1115	5001		3			178			.05	1.70	1.00	1.05	--			.11	.26				
01/29/73	5001		9	C			28AF			--	.50	--				--	--				
1110	5001		3			323			.04	1.40	.60	0.64	--			.08	.10				
02/26/73	5001		13	C	7.5		140AF			--	.30	--				.05	--				
1200	5001		3			428			.05	.66	.90	0.95	--			--	.26				
E4 L 748.1 215.6 LAKE HERRITT AT BOATHOUSE DOCK																					
12/11/72	5050		44	F	8.9	13000	11A	110		--	--	--				0.24	--				
1345	5050				7.1	13300		0	--	0.19	--	1.5	--			--	0.49				
03/20/73	5050		56	F	9.0	6000	1A	122		--	--	--				0.22	--				
1150	5050				7.6	6480		0	--	0.06	--	0.8	--			--	0.27				
06/18/73	5050		71	F	8.5	37000	0A	133		--	--	--				0.13	--				
1230	5050				7.5	41200		0	--	0.00	--	0.3	--			--	0.30				
09/13/73	5050		68	F	8.5	42000	2A	134		--	--	--				0.09	--				
1020	5050				7.5	45200		0	0.00	0.02	0.4	0.4	--			--	0.52				
E5 1423.01 ARROYO VALLE NEAR UPSTREAM END OF LAKE DEL VALLE																					
11/15/72	5050		54.0F		8.7	360	37A	148		--	--	--				0.05	--				
1105	5050				7.5	372		0	0.02	1.4	0.9	0.92	--			--	0.10				
04/18/73	5050		58.0F		8.9	580	1A	278		--	--	--				0.01	--				
1100	5050				8.0	582		0	0.03	0.11	0.1	0.13	--			--	0.01				
05/16/73	5050		70	F	8.7	580	1A	277		--	--	--				0.00	--				
1015	5050				8.0	616		0	0.00	0.55	0.1	0.1	--			--	0.00				

TABLE D-6

PESTICIDES IN SURFACE WATER

Sampler and Lab Agency Codes

5001 - U. S. Bureau of Reclamation
5050 - Department of Water Resources

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock
TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)
EC - Electrical conductance in micromhos at 25°C
DO - Dissolved oxygen content in milligrams per liter
PH - Measure of acidity (<7) or alkalinity (>7) of water
DEPTH - Depth in feet at which sample was collected
DISCHARGE - Instantaneous discharge in cubic feet per second

Pesticides

Chlorinated Hydrocarbons

<u>Code</u>	<u>Most Common Name</u>
CAPTAN	- CAPTAN
DACTHAL	- DACTHAL
DDT	- DDT (Code includes all Isomers; Para Para etc.)
DIELDRIN	- DIELDRIN
UNKNOWN	- Complex chlorinated compound mixture as (Reported as DDT), one or more
NONE	
DETECTED	- No detectable amount of Chlorinated Hydrocarbons

Organic Phosphorus

ORGANIC P	- Organic Phosphorus compounds as Parathion
UNKNOWN	- Complex mixture as Parathion (Reported as Parathion), one or more
NONE	
DETECTED	- No detectable amount of organic phosphorus.

TABLE D-6 (CONTINUED)											
PESTICIDES IN SURFACE WATER											
COMPOUNDS REPORTED IN NANOGRAMS/LITER											
DATE TIME	SAMP LAB	TEMP FC	DO PH	G.H. DEP DISCHARGE	CHLORINATED HYDROCARBON			ORGANIC PHOSPHORUS		OTHER	
		02	1006.60	MERRITT LAKE DRAIN AT PUMP							
08/14/73	5050	70 F	7.6	450 DDT			NONE DETECTED				
0930	5050	2890	8.0								
		02	1030.30	BLANCO DRAIN AT PUMP LIFT							
08/14/73	5050	65 F	8.2	40 CAPTAN			150 UNKNOWNNS	55 ORGANICP	55 UNKNOWNNS		
0800	5050	2380	8.2								
		E0 B	735.0	215.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNFL)						
11/27/72	5050	57 F	7.8	NONE DETECTED							
1230	5050	38000	7.9								
01/23/73	5050	49 F	9.7	NONE DETECTED							
1130	5050	28000	7.9								
03/20/73	5050	53 F	9.2	NONE DETECTED							
0915	5050	26000	8.1								
05/03/73	5050	60 F	8.8	30 UNKNOWNNS							
0810	5050	33000	8.2								
07/30/73	5050	69 F	6.6	70 UNKNOWNNS							
0830	5050	41000	8.1								
09/13/73	5050	66 F	6.9	110 UNKNOWNNS							
0810	5050	44000	8.2								
		E0 B	736.2	212.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)						
11/27/72	5050	57 F	8.2	NONE DETECTED							
1330	5050	40000	8.1								
01/23/73	5050	49 F	9.1	NONE DETECTED							
1220	5050	32000	7.9								
03/20/73	5050	53 F	9.6	NONE DETECTED							
1015	5050	26000	8.0								
05/03/73	5050	60 F	9.0	40 UNKNOWNNS							
0900	5050	34000	8.2								
07/30/73	5050	70 F	6.3	70 UNKNOWNNS							
0930	5050	43000	8.1								
09/13/73	5050	64 F	7.0	130 UNKNOWNNS							
0910	5050	45000	8.2								
		E0 B	749.2	222.4	SAN FRANCISCO BAY AT TREASURE ISLAND						
11/27/72	5050	56 F	8.1	NONE DETECTED							
1100	5050	37500	7.9								
01/23/73	5050	48 F	9.8	NONE DETECTED							
1000	5050	15000	7.8								
03/20/73	5050	52 F	9.0	NONE DETECTED							
0730	5050	34000	8.1								
05/03/73	5050	56 F	8.2	20 UNKNOWNNS							
0645	5050	41000	8.2								
07/30/73	5050	63 F	6.5	80 UNKNOWNNS							
0700	5050	44000	8.0								
09/13/73	5050	62 F	7.4	20 DACTHAL			100 UNKNOWNNS				
0640	5050	45000	8.1								
		E0 B	802.7	207.0	SUISUN BAY OFF BULLS HEAD POINT NEAR MARTINES						
01/15/73	5001	8 C	10.5	3 NONE DETECTED							
1050	5050		7.3								
02/14/73	5001	11 C	9.8	3 NONE DETECTED							
1315	5050		7.6								
05/09/73	5001	17.0C	9.0	3 20 UNKNOWNNS							
1110	5050	12350	7.9								
09/05/73	5001	18.0C	8.1	3 30 UNKNOWNNS			20 DACTHAL				
1305	5050	21840	8.0								
		E0 B	802.8	155.0	SACRAMENTO RIVER AT CHIPPS ISLAND						
05/09/73	5001	18.0C	9.3	3 5 DACTHAL			20 UNKNOWNNS				
1225	5050	1930	8.1								
09/05/73	5001	19.0C	8.6	3 NONE DETECTED							
1425	5050	5542	8.1								
		E0 B	803.5	217.0	SAN PABLO BAY NEAR RODEO						
05/09/73	5001	16.0C	8.8	3 15 UNKNOWNNS							
1010	5050	20700	8.0								
09/05/73	5001	18.0C		3 20 UNKNOWNNS							
1210	5050	32500	7.8								
		E0 B	804.0	203.0	SUISUN BAY NEAR PRESTON POINT						
05/09/73	5001	17.0C	9.2	3 5 DACTHAL			15 UNKNOWNNS				
1140	5050	7640	8.0								
09/05/73	5001	18.0C	8.4	3 NONE DETECTED							
1330	5050	12600	8.1								
		E4 L	748.1	215.6	LAKE MERRITT AT BOATHOUSE DOCK						
12/11/72	5050	44 F	12.1	45 UNKNOWNNS							
1345	5050	13000	8.9								
03/20/73	5050	56 F	9.3	75 UNKNOWNNS			10 DACTHAL				
1150	5050	6000	9.0	5 DIELDIN							
06/18/73	5050	71 F	10.0	NONE DETECTED							
1230	5050	3700	8.5								
09/13/73	5050	68 F	6.8	100 UNKNOWNNS							
1020	5050	42000	8.5								

TABLE D-7 (Cont.)

DAILY MAXIMUM, MINIMUM, AND AVERAGE SPECIFIC CONDUCTANCE

00 1180.01 SAN LORENZO RIVER AT PARADISE PARK
(October 1, 1972, through September 30, 1973)

(In Micromhos at 25° C)

Day	October			November			December			January			February			March		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	390	370	380	400	390	395	360	360	360	355	350	350	278	260	272			
2	370	365	370	395	390	395	360	360	360	355	350	350	288	278	284			
3	370	360	365	395	385	390	360	330	355	355	350	350	290	103	236			
4	365	360	360	390	260	335	350	280	320	360	350	355	131	106	122			
5	370	360	370	405	360	380	350	345	345	350	350	350	144	131	140			
6	370	370	370	370	360	365	345	250	300	350	350	350	145	75	103			
7	380	370	375	375	330	360	290	274	280	350	345	350	108	76	95			
8	385	380	380	380	345	370	305	285	298	350	155	298	141	107	121			
9	380	360	375	385	370	375	310	305	310	184	132	155	150	112	137			
10	380	345	355	370	262	322	310	300	305	198	146	175	115	73	92			N
11	400	365	390	340	278	290	325	320	320	222	198	210	120	86	104			O
12	420	355	390	330	284	310	330	325	325	210	200	204	NR	NR	NR			
13	380	360	375	345	85	310	330	325	330	230	210	222	NR	NR	NR			
14	390	340	370	230	193	215	340	330	335	242	230	238	NR	NR	NR			
15	345	310	335	254	197	233	345	335	340	248	242	246	NR	NR	NR			R
16	345	296	325	260	197	233	340	335	335	248	55	137	NR	NR	NR			E
17	310	250	282	289	260	277	340	320	330	98	59	84	NR	NR	NR			
18	340	310	325	300	289	297	350	330	340	104	58	80	NR	NR	NR			C
19	365	340	360	313	300	309	330	300	315	NR	NR	NR	NR	NR	NR			
20	380	360	370	315	315	315	340	330	335	NR	NR	NR	NR	NR	NR			O
21	390	375	385	330	315	325	350	335	345	NR	NR	NR	NR	NR	NR			R
22	400	390	395	335	330	330	345	320	335	NR	NR	NR	NR	NR	NR			
23	400	390	395	335	335	335	335	330	335	NR	NR	NR	NR	NR	NR			D
24	405	395	400	345	335	340	330	330	330	NR	NR	NR	NR	NR	NR			
25	410	400	405	350	345	350	335	330	335	NR	NR	NR	NR	NR	NR			
26	400	400	400	350	335	345	335	330	330	NR	NR	NR	NR	NR	NR			
27	405	400	400	355	350	355	350	330	345	NR	NR	NR	NR	NR	NR			
28	420	405	410	360	355	360	360	355	355	250	240	245	NR	NR	NR			
29	410	395	400	360	360	360	355	350	355	255	220	230						
30	395	390	390	360	360	360	355	350	350	235	285	215						
31	400	390	395				355	350	350	260	235	250						

Day	April			May			June			July			August			September		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1										NR	NR	NR	355	340	345	350	345	350
2										NR	NR	NR	355	335	345	355	345	350
3										350	335	340	350	325	340	350	340	345
4										350	340	345	340	325	335	350	340	345
5										350	340	345	340	325	330	350	340	345
6										350	340	345	335	325	330	350	345	350
7										350	335	340	335	320	330	355	345	350
8										345	330	340	340	325	330	355	350	350
9										340	325	335	340	325	330	360	350	355
10		N			N			N		340	325	335	340	325	335	350	345	350
11		O			O			O		340	325	335	340	325	335	350	345	350
12										340	320	330	335	320	325	350	345	350
13										340	320	320	330	320	325	350	345	345
14										335	320	330	330	320	325	350	350	350
15		R			R			R		340	320	330	330	320	325	350	350	350
16		E			E			E		340	315	330	340	325	335	355	350	350
17										340	315	335	340	325	330	350	345	350
18		C			C			C		340	315	335	340	320	330	355	350	350
19										335	310	330	335	320	330	355	350	350
20		O			O			O		340	315	330	335	325	330	355	350	355
21		R			R			R		340	315	325	335	325	330	355	350	355
22										340	315	330	335	325	330	355	350	355
23		D			D			D		340	310	330	335	325	330	350	350	350
24										340	315	330	335	320	330	350	350	350
25										340	310	325	335	325	330	360	350	355
26										340	315	330	335	325	330	375	360	370
27										340	310	330	335	325	330	375	360	370
28										340	315	330	340	330	335	360	360	360
29										340	335	335	345	335	340	360	360	360
30										350	345	345	345	335	340	370	360	365
31													350	345	350			

NR - No Record.

TABLE D-7 (Cont.)

DAILY MAXIMUM, MINIMUM, AND AVERAGE SPECIFIC CONDUCTANCE

F9 1100.00 RUSSIAN RIVER NEAR GUERNEVILLE
(October 1972 through September 1973)

(In Micromhos at 25° C)

Day	October			November			December			January			February			March		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	335	270	280	280	280	280	255	245	250	265	260	265	220	210	215	188	166	180
2	275	265	270	280	280	280	250	245	250	270	265	265	230	220	225	204	188	196
3	275	270	275	NR	NR	NR	250	245	250	270	270	270	235	230	235	208	180	200
4	275	250	270	NR	NR	NR	250	245	250	270	270	270	235	152	202	193	180	183
5	285	265	280	290	265	275	250	245	245	275	270	270	152	133	139	208	193	202
6	295	285	290	295	290	290	245	190	220	275	275	275	164	145	158	208	172	190
7	290	285	290	340	250	290	215	190	200	280	275	275	149	139	142	197	173	185
8	285	275	280	270	250	260	215	215	215	280	168	250	174	149	164	198	190	195
9	280	270	275	280	270	275	220	215	220	168	107	123	185	174	179	215	198	205
10	300	270	280	290	240	265	225	220	225	143	106	134	169	140	148	220	215	215
11	300	260	285	230	210	220	230	225	225	155	87	120	164	143	152	215	215	215
12	260	245	255	239	225	235	230	230	230	98	86	92	178	164	174	225	215	220
13	260	255	255	250	123	170	235	230	235	130	98	115	180	161	170	230	225	225
14	NR	NR	NR	180	125	140	235	235	235	162	130	145	184	164	174	235	230	230
15	NR	NR	NR	186	157	180	235	235	235	175	156	168	179	164	174	NR	NR	NR
16	290	250	270	163	144	154	235	230	235	156	97	106	183	179	181	NR	NR	NR
17	300	255	280	184	161	174	NR	NR	NR	135	96	115	194	183	189	NR	NR	NR
18	310	295	305	200	184	194	NR	NR	NR	135	107	115	200	194	196	NR	NR	NR
19	310	300	305	210	200	206	NR	NR	NR	151	113	133	204	200	201	NR	NR	NR
20	300	298	300	215	210	210	NR	NR	NR	171	151	162	209	204	206	NR	NR	NR
21	298	295	295	220	215	220	NR	NR	NR	174	171	172	215	208	210	NR	NR	NR
22	295	295	295	230	220	225	210	190	201	185	171	180	254	215	230	NR	NR	NR
23	295	290	290	235	230	235	205	187	295	190	185	188	263	248	253	NR	NR	NR
24	290	290	290	255	235	245	215	205	210	206	190	197	263	140	198	NR	NR	NR
25	290	290	290	255	250	250	220	210	215	215	200	206	160	142	150	NR	NR	NR
26	290	285	290	260	250	255	235	220	230	230	215	225	172	147	162	NR	NR	NR
27	285	285	285	260	255	260	240	235	240	240	230	235	160	148	156	NR	NR	NR
28	285	282	285	255	255	255	240	240	240	250	240	245	166	157	161	NR	NR	NR
29	285	282	283	255	255	255	250	240	245	250	190	235	NR	NR	NR	NR	NR	NR
30	282	280	280	255	255	255	260	250	255	190	172	178	NR	NR	NR	NR	NR	NR
31	280	280	280	NR	NR	NR	260	255	260	210	185	202	NR	NR	NR	NR	NR	NR

Day	April			May			June			July			August			September		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	NR	NR	NR	295	295	295	345	330	335	280	270	270	250	240	245	270	260	265
2	NR	NR	NR	300	295	295	340	330	335	285	265	275	250	240	245	270	260	265
3	NR	NR	NR	295	290	295	340	325	335	320	280	295	250	240	245	270	260	265
4	NR	NR	NR	295	290	295	335	320	325	285	270	275	250	240	245	265	255	260
5	NR	NR	NR	300	285	295	330	310	325	280	270	270	255	245	250	270	265	270
6	NR	NR	NR	290	285	285	330	315	320	280	265	275	255	250	255	275	265	270
7	NR	NR	NR	285	285	285	330	320	325	275	255	265	255	250	255	275	265	270
8	NR	NR	NR	290	285	285	340	320	325	270	260	265	255	255	255	275	265	270
9	NR	NR	NR	290	285	285	340	315	325	275	265	270	255	245	255	275	260	265
10	NR	NR	NR	290	285	285	330	315	325	275	260	265	260	250	255	275	270	270
11	NR	NR	NR	290	290	290	330	315	325	270	260	265	260	245	255	275	265	270
12	285	280	285	290	285	285	330	310	320	265	255	260	260	250	255	265	260	260
13	295	260	285	290	285	285	325	310	315	260	250	255	260	250	255	275	260	270
14	295	280	285	290	285	285	310	305	310	260	250	255	260	245	255	340	270	300
15	295	290	290	290	285	285	NR	NR	NR	255	250	255	260	250	255	NR	NR	NR
16	295	295	295	310	290	295	NR	NR	NR	255	250	255	260	245	255	NR	NR	NR
17	305	295	300	325	310	315	310	295	305	255	250	255	260	245	255	NR	NR	NR
18	315	305	305	340	325	330	305	295	300	260	250	255	260	250	255	NR	NR	NR
19	315	315	315	345	340	340	300	270	285	265	260	265	260	245	255	NR	NR	NR
20	320	315	315	345	340	345	290	280	285	270	265	270	260	250	255	NR	NR	NR
21	320	315	315	345	335	340	295	285	290	270	265	270	260	250	250	NR	NR	NR
22	315	310	315	345	345	345	290	280	285	275	265	270	260	245	255	NR	NR	NR
23	310	305	305	345	335	340	290	280	285	275	270	275	255	245	250	NR	NR	NR
24	305	305	305	395	345	370	280	270	275	275	270	275	260	250	255	335	295	310
25	305	305	305	385	335	350	280	270	280	275	270	275	270	255	260	310	285	295
26	310	305	305	340	330	335	280	270	275	270	260	265	270	255	265	315	290	300
27	310	310	310	340	330	335	275	265	270	265	250	255	265	255	260	300	295	300
28	310	305	305	335	330	330	290	275	280	260	255	260	265	250	260	310	300	305
29	305	285	295	330	320	325	275	265	270	260	250	255	260	245	255	315	305	310
30	300	295	295	335	320	330	280	270	275	260	250	255	265	260	265	310	300	305
31	NR	NR	NR	345	330	335	250	240	245	270	255	265	270	255	265	NR	NR	NR

NR - No Record

TABLE D-8

PHYTOPLANKTON ANALYSIS OF SURFACE WATER

Codes and Abbreviations

Total - Total phytoplankton per milliliter
Bl-Gr - Blue-Green Algae
Green - Green Algae
Flag - Flagellates
C/P - Centric over Pennate
Samp - 5050 - Department of Water Resources
Lab - 5050 - Department of Water Resources
 Laboratory

Most Abundant PhytoplanktonGreen Algae

G 02 Ankistrodesmus
 G 14 Pediastrum
 G 19 Schroderia
 G 20 Elakatothrix
 G 22 Selenastrum

Flagellates

F 07 Phacus
 F 08 Trachelomonas
 F 56 Cryptomonas
 F 59 Glenodinium
 F 99 Unidentified

DiatomsCentric

D 02 Coscinodiscus
 D 03 Cyclotella
 D 04 Melosira (salt water)
 D 06 Stephanodiscus

Pennate

D 50 Unidentified
 D 57 Cocconeis
 D 62 Fragilaria
 D 64 Gyrosigma
 D 65 Navicula
 D 66 Nitzschia
 D 69 Surirella
 D 70 Synedra

TABLE D-8 (Cont.)

PHYTOPLANKTON ANALYSIS OF SURFACE WATER

Station Number	Station	Date Time	Phytoplankton (number per milliliter)					Most Abundant Phytoplankton (genus %)						Samp	Lab
			Total	B1-Gr	Green	Flag	Diatoms C P	1	2	3	4	5	6		
EO B 735.0 215.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (SHIP CHANNEL)	10-11-72 0930	316				284 0 32	F 99 89.9	D 65 10.1					5050	5050
		11-27-72 1230	610				610	F 99 73.8	F 56 26.2					5050	5050
		12-11-72 1115	706				674 0 32	F 99 86.4	F 56 9.1	D 65 4.5				5050	5050
		01-23-73 1130	734				670 64 0	F 99 73.6	F 56 17.7	D 03 8.7				5050	5050
		02-06-73 1030	1032				1032	F 99 96.9	F 56 3.1					5050	5050
		03-20-73 0915	674				482 64 128	F 99 66.8	D 65 14.2	D 03 9.5	F 56 4.7	D 70 4.7		5050	5050
		04-05-73 0915	1360				1200 32 128	F 99 88.2	D 70 7.0	D 03 2.4	D 62 2.4			5050	5050
		05-03-73 0810	992				832 128 32	F 99 80.6	D 03 9.7	F 56 3.2	D 03 3.2	D 66 3.2		5050	5050
		06-18-73 1000	130				130	F 99 100						5050	5050
		07-30-73 0830	190				190	F 99 100						5050	5050
		08-14-73 0920	0											5050	5050
		09-13-73 0810	96				96	F 99 100						5050	5050
EO B 736.2 212.0	SAN FRANCISCO BAY AT SAN MATEO BRIDGE (PIER 662)	10-11-72 1100	386				386	F 99 100						5050	5050
		11-27-72 1330	576				576	F 99 83.3	F 56 16.7					5050	5050
		12-11-72 1200	636				636	F 99 84.9	F 56 15.1					5050	5050
		01-23-73 1220	260				260	F 99 100						5050	5050
		02-06-73 1100	1196				1100 64 32	F 99 92.0	D 03 5.4	D 65 2.6				5050	5050
		03-20-73 1015	574				380 130 64	F 99 66.2	D 03 22.6	D 65 11.2				5050	5050
		04-05-73 1005	1658				1432 130 96	F 99 84.5	D 03 7.9	F 56 1.9	D 62 1.9	D 65 1.9	D 70 1.9	5050	5050
		05-03-73 0900	2428				2396 0 32	F 99 94.7	F 56 4.0	D 50 1.3				5050	5050
		06-18-73 1045	416				384 0 32	F 99 76.9	F 56 15.4	D 66 7.7				5050	5050
		07-30-73 0930	190				190	F 99 100						5050	5050
		08-14-73 1000	0											5050	5050
		09-13-73 0910	96		64	32		G 20 66.7	F 08 33.3					5050	5050
EO B 749.2 222.4	SAN FRANCISCO BAY AT TREASURE ISLAND	10-11-72 0850	450				450	F 99 100						5050	5050
		11-27-72 1100	356				260 0 96	F 99 73.0	D 65 18.0	D 57 9.0				5050	5050
		12-11-72 1000	740				708 0 32	F 99 78.4	F 56 13.0	F 07 4.3	D 64 4.3			5050	5050
		01-23-73 1000	386				290 32 64	F 99 75.1	D 04 8.3	D 62 8.3	D 65 8.3			5050	5050
		02-06-73 0840	992		64	800	96 32	F 99 80.6	G 02 3.3	G 14 3.3	D 02 3.2	D 03 3.2	D 06 3.2	5050	5050
		03-20-73 0730	578		32	450	96 0	F 99 77.9	D 03 11.1	G 22 5.5	D 02 5.5			5050	5050
		04-05-73 0800	1488		32	1200	128 128	F 99 80.6	D 03 6.5	D 65 4.3	G 02 2.2	D 02 2.2	D 57 2.1	5050	5050
		05-03-73 0645	1258			1032	226 0	F 99 79.5	D 03 10.3	D 02 5.1	F 56 2.5	D 65 2.5		5050	5050
		06-18-73 0845	290				290	F 99 100						5050	5050
		07-30-73 0700	194		32	130	0 32	F 99 67.0	G 19 16.5	D 69 16.5				5050	5050
		08-14-73 0755	64		32		32 0	G 02 50.0	D 03 50.0					5050	5050
		09-13-73 0640	476				476	F 99 79.8	F 59 13.5	F 56 6.7				5050	5050

APPENDIX E

GROUND WATER QUALITY DATA

This appendix presents ground water quality data collected during the period from October 1, 1972, through September 30, 1973. The data were collected from a number of major ground water sources in the Central Coastal Area in cooperation with other state, local, and federal agencies. During the 1973 water year, 226 wells were sampled in 34 ground water basins and subbasins or subareas.

At the time of field sampling, pH and temperature measurements are normally made. Comments on current conditions are noted in field books which are available in the files of the Department of Water Resources.

Laboratory analyses of ground waters were performed in accordance with "Standard Methods for the Examination of Water and Wastewater", 13th Edition.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements", on page 19. The locations of the ground water basins and subbasins are shown on Figure C-1, pages 21, 22, and 23.

INDEX TO GROUND WATER QUALITY DATA
IN THE CENTRAL COASTAL AREA

<u>Number</u>	<u>Name</u>	<u>Page</u>
NORTH COASTAL REGION 1-00.00 (Figure C-1, Page 21)		
1-14.00	Potter Valley	86
1-15.00	Ukiah Valley	86
1-16.00	Sanel Valley	86
1-17.00	Alexander Valley	86
1-18.00	Santa Rosa Valley	
1-18.01	Santa Rosa Area	86, 98
1-18.02	Healdsburg Area	86
1-19.00	Anderson Valley	87
1-20.00	Point Arena	87
1-21.00	Fort Bragg Terrace	87
1-80.00	Miscellaneous Area	98
1-98.00	Lower Russian River Valley	87, 98
SAN FRANCISCO BAY REGION 2-00.00 (Figure C-1, Page 22)		
2-01.00	Petaluma Valley	88, 98
2-02.00	Napa-Sonoma Valley	
2-02.01	Napa Valley	88
2-02.02	Sonoma Valley	88, 98
2-03.00	Suisun-Fairfield Valley	89
2-04.00	Pittsburg Plain	89
2-05.00	Clayton Valley	89
2-06.00	Ygnacio Valley	89
2-09.00	Santa Clara Valley	
2-09.01	East Bay Area	90
2-09.02	South Bay Area	91, 98
2-10.00	Livermore Valley	91
2-22.00	Half Moon Bay Terrace	92
2-24.00	San Gregorio Valley	92
2-26.00	Pescadero Valley	92
CENTRAL COASTAL REGION 3-00.00 (Figure C-1, Page 23)		
3-01.00	Soquel Valley	93
3-02.00	Pajaro Valley	
3-03.00	Gilroy-Hollister Valley	
3-03.01	South Santa Clara County	93
3-03.02	San Benito County	94
3-04.00	Salinas Valley	
3-04.01	Pressure Area	95
3-04.02	East Side Area	96
3-04.03	Forebay Area	96
3-04.05	Upper Valley Area	96
3-04.08	Seaside Area	96
3-07.00	Carmel Valley	96
3-26.00	West Santa Cruz Terrace	97

TABLE E-1

MINERAL ANALYSES OF GROUND WATER

Sampler and Lab Agency Codes

2400	-	Santa Clara Valley Water District
5000	-	U. S. Geological Survey
5050	-	Department of Water Resources
5100	-	Alameda County Flood Control and Water Conservation District
5114	-	Santa Clara County
5115	-	Monterey County Flood Control and Water Conservation District
5401	-	Alameda County Water District

Abbreviations

TIME	-	Pacific Standard Time on a 24-hour clock
TEMP	-	Water temperature in degrees Fahrenheit (F) and Celsius (C) at the time of field sampling
PH	-	Measure of acidity (<7) or alkalinity (>7) of water
EC	-	Electrical conductance in micromhos at 25° C
TDS	-	Gravimetric determination of total dissolved solids at 180° C
SUM	-	Total dissolved solids by summation of analyzed constituents
TH	-	Total hardness
NCH	-	Noncarbonate hardness - any excess of total hardness over total alkalinity
SAR	-	Sodium adsorption ratio

Mineral Constituents

B	-	Boron	K	-	Potassium
CA	-	Calcium	MG	-	Magnesium
CL	-	Chloride	NA	-	Sodium
CO3	-	Carbonate	NO3	-	Nitrate
F	-	Fluoride	SI02	-	Silica
HCO3	-	Bicarbonate	S04	-	Sulfate

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	8	F	TDS SUM	TH NCH	SAR		
																			PERCENT REACTANCE VALUE	
.																				
1-00.00 1-14.00		NORTH COASTAL REGION POTTER VALLEY																		
07/24/73 1100	5050 5050	M 59 15	F C	7.1 8.2	340 340	27 1.35 36	21 1.73 47	14 .61 16	.3 .01	0 .00	198 3.25 90	7.2 .15 4	7.1 .20 6	.9 .01	.10 --	-- --	174 175	153 0	0.5	
1-15.00		UKIAH VALLEY																		
07/24/73 1400	5050 5050	M 68 20	F C	7.1 8.1	375 386	27 1.35 34	25 2.06 52	12 .52 13	1.0 .03 1	0 .00	177 2.90 74	19 .40 10	10 .28 7	22.0 .35 9	.20 --	-- --	204 203	172 26	0.4	
07/24/73 1645	5050 5050	M 68 20	F C	7.3 7.9	500 503	40 2.00 37	29 2.38 44	24 1.04 19	.9 .02	0 .00	276 4.52 84	13 .27 5	21 .59 11	.6 .01	.00 --	-- --	262 264	218 0	0.7	
07/24/73 1450	5050 5050	M 68 20	F C	7.3 8.2	420 389	37 1.85 46	9.8 .81 20	31 1.35 34	.3 .01	0 .00	221 3.62 88	.3 .01	15 .42 10	4.1 .07 2	.20 --	-- --	199 206	133 0	1.2	
1-16.00		SANEL VALLEY																		
07/25/73 1330	5050 5050	M 66 19	F C	7.7 8.2	375 386	37 1.85 45	21 1.73 42	12 .52 13	1.2 .03 1	0 .00	218 3.57 87	16 .33 8	6.2 .17 4	2.9 .05 1	.30 --	-- --	207 204	180 1	0.4	
07/25/73 1245	5050 5050	M 61 16	F C	7.0 7.6	370 380	-- --	-- --	18 .78 20	-- --	0 .00	201 3.29	-- --	12 .34	-- --	-- --	-- --		158	0.6	
1-17.00		ALEXANDER VALLEY																		
07/25/73 1730	5050 5050	M 57 14	F C	7.7 7.7	575 593	-- --	-- --	128 5.57 96	-- --	0 .00	313 5.13	-- --	35 .99	-- --	-- --	-- --		12	16.1	
07/26/73 1030	5050 5050	M 57 14	F C	7.1 8.1	380 388	30 1.50 37	26 2.14 53	9.2 .40 10	.6 .02	0 .00	192 3.15 78	28 .58 14	6.2 .17 4	9.8 .16 4	.00 --	-- --	215 204	184 25	0.3	
07/25/73 1615	5050 5050	M 67 19	F C	6.9 8.0	510 535	30 1.50 27	44 3.62 65	11 .48 9	.1 .00	0 .00	193 3.16 57	73 1.52 27	10 .28 5	37.0 .60 11	.10 --	-- --	322 300	258 98	0.3	
1-18.00 1-18.01		SANTA ROSA VALLEY SANTA ROSA AREA																		
07/27/73 1000	5050 5050	M 68 20	F C	6.7 7.1	675 656	-- --	-- --	44 1.91 30	-- --	0 .00	132 2.16	-- --	75 2.12	-- --	-- --	-- --		225	1.3	
07/27/73 0845	5050 5050	M 64 18	F C	7.0 8.1	625 628	-- --	-- --	50 2.18 33	-- --	0 .00	279 4.57	-- --	44 1.24	-- --	-- --	-- --		220	1.5	
07/26/73 1800	5050 5050	M 67 19	F C	7.3 7.8	245 238	-- --	-- --	22 .96 37	-- --	0 .00	150 2.46	-- --	4.9 .14	-- --	-- --	-- --		83	1.1	
07/26/73 1730	5050 5050	M 64 18	F C	7.5 7.7	255 255	-- --	-- --	25 1.09 41	-- --	0 .00	152 2.49	-- --	5.7 .16	-- --	-- --	-- --		80	1.2	
07/26/73 1400	5050 5050	M 64 18	F C	7.1 7.6	1175 1130	-- --	-- --	57 2.48 23	-- --	0 .00	218 3.57	-- --	137 3.86	-- --	-- --	-- --		421	1.2	
07/26/73 1300	5050 5050	M 64 18	F C	6.5 7.4	160 152	-- --	-- --	14 .61 44	-- --	0 .00	69 1.13	-- --	13 .37	-- --	-- --	-- --		39	1.0	
1-18.02		HEALDSBURG AREA																		
07/26/73 1115	5050 5050	M 64 18	F C	7.1 7.5	210 208	-- --	-- --	16 .70 33	-- --	0 .00	119 1.95	-- --	6.3 .18	-- --	-- --	-- --		71	0.8	

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCM	SAR
1-00.00 NORTH COASTAL REGION																		
1-19.00 ANDERSON VALLEY																		
09/19/73 1150	5050	13N/14W-02L01	M	64.0F 17.8C	225	--	--	--	--	--	--	--	--	--	--	--	--	--
09/19/73 1205	5050	13N/14W-11A01	M	65.0F 18.3C	7.0 260	--	--	--	--	--	--	--	--	--	--	--	--	--
09/19/73 1230	5050	14N/14W-18R02	M	68.0F 20.0C	150	--	--	--	--	--	--	--	--	--	--	--	--	--
09/19/73 1240	5050	14N/14W-19B01	M	66.0F 18.9C	7.8 275 263	--	--	19 .83 32	--	0 .00	95 1.56	--	30 .85	--	--	--	88	0.9
09/19/73 1220	5050	14N/14W-34G06	M	65.0F 18.3C	7.3 510 8.3 534	23 1.15 21	14 1.15 21	72 3.13 57	.6 .02	0 .00	274 4.49 80	.0 .00	40 1.13 20	.6 .01	3.60	-- --	297 289	115 0 2.9
1-20.00 POINT ARENA																		
09/19/73 1000	5050	12N/16W-18K01	M	66.0F 18.9C	340	--	--	--	--	--	--	--	--	--	--	--	--	--
09/19/73 0855	5050	12N/17W-12L01	M	59.0F 15.0C	125	--	--	--	--	--	--	--	--	--	--	--	--	--
09/19/73 0800	5050	13N/17W-24D01	M	62.0F 16.7C	220 225	--	--	--	--	--	--	--	41 1.16	12.0 .19	--	--	--	32
09/19/73 0820	5050	13N/17W-25H01	M	60.0F 15.5C	8.0 380 400	41 2.05 53	4.7 .39 10	32 1.39 36	.6 .02 1	0 .00	145 2.38 61	20 .42 11	35 .99 26	5.4 .09 2	.00	-- --	230 210	122 3 1.3
1-21.00 FORT BRAGG TERRACE																		
09/18/73 1810	5050	17N/17W-30F01	M	61.0F 16.1C	6.9 600 638	--	--	--	--	0 .00	29 .48 10	--	137 3.86 77	41.0 .66 13	--	--	--	143
09/18/73 1800	5050	17N/17W-30M01	M	65.0F 18.3C	335	--	--	--	--	--	--	--	--	--	--	--	--	--
09/18/73 1650	5050	19N/17W-30G01	M	63.0F 17.2C	325	--	--	--	--	--	--	--	--	--	--	--	--	--
09/18/73 1625	5050	19N/17W-30Q01	M	62.0F 16.7C	7.1 395	--	--	--	--	--	--	--	--	--	--	--	--	--
1-98.00 LOWER RUSSIAN RIVER VALLEY																		
05/16/73	5117 5050	07N/11W-14E02	M			14 .70 15	42 3.45 76	8.8 .38 8	.9 .02	0 .00	243 3.98 87	14 .29 6	8.4 .24 5	5.5 .09 2	.00	.1 37.0	230 250	208 9 0.3

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
			LABORATORY PH	EC	CA	MG	NA	K	PERCENT REFRACTANCE VALUE					B	F	TDS SUM	TH NCH	SAR	
									CO3	HCO3	SO4	CL	NO3						
2-00.00 2-01.00		SAN FRANCISCO BAY REGION PETALUMA VALLEY																	
07/27/73 1400	5050 5050	03N/06W-11B01 M		7.7 7.8	2000 1860	--	--	310 13.49 72	--	0 .00	575 9.42	--	316 8.91	--	--	--		257	8.4
07/27/73 1430	5050 5050	03N/06W-16H01 M	67 F 19 C	6.3 7.1	178 176	--	--	14 .61 41	--	0 .00	27 .44	--	16 .45	--	--	--		44	0.9
07/27/73 1230	5050 5050	04N/06W-08E01 M	62 F 17 C	7.7 8.1	1010 964	--	--	77 3.35 30	--	0 .00	546 8.95	--	42 1.18	--	--	--		392	1.7
05/17/73 5117 5050	5117 5050	04N/06W-27N01 M		8.1 1190	46 2.30 19	35 2.88 23	164 7.13 58	2.0 .05	0 .00	494 8.10 66	3.6 .07 1	143 4.03 33	.1 .00	.30 30.0	.1 667	663 261 0	261 0	4.4	
07/27/73 1330	5050 5050	04N/06W-33R01 M		7.1 18800	--	--	--	--	--	--	--	6280 177.10	--	--	--				
07/27/73 1200	5050 5050	05N/06W-30D01 M		8.3 8.4	825 836	22 1.10 13	9.2 .76 9	155 6.74 78	.8 .02	5.0 .17 2	401 6.57 73	38 .79 9	54 1.52 17	.6 .01	.80 --	473 483	93 0	7.0	
2-02.00		NAPA-SONOMA VALLEY																	
2-02.01		NAPA VALLEY																	
07/31/73 1000	5050 5050	03N/03W-18G02 M		7.9 8.0	1250 1260	--	--	103 4.48 34	--	0 .00	364 5.97	--	161 4.54	--	--	--		427	2.2
07/31/73 1130	5050 5050	03N/04W-05M01 M	65 F 18 C	7.5 8.0	1825 1620	--	--	283 12.31 71	--	0 .00	691 11.33	--	184 5.19	--	--	--		254	7.7
08/01/73 1330	5050 5050	04N/04W-05D02 M	71 F 22 C	7.3 7.9	1050 1040	--	--	113 4.92 50	--	0 .00	258 4.23	--	160 4.51	--	--	--		244	3.1
07/31/73 1245	5050 5050	04N/04W-14C02 M		7.2 8.0	1750 1620	--	--	148 6.44 41	--	0 .00	327 5.36	--	325 9.17	--	--	--		468	3.0
07/31/73 1345	5050 5050	05N/04W-11F03 M		7.5 8.2	710 716	17 .85 13	8.9 .73 11	117 5.09 75	4.6 .12 2	0 .00	237 3.88 57	.5 .01	101 2.85 42	.7 .01	2.40 --	436 369	79 0	5.7	
08/01/73 1415	5050 5050	05N/04W-21P02 M		8.0 3500	--	--	--	--	--	--	--	648 18.27	--	--	--				
08/01/73 1440	5050 5050	05N/04W-22M02 M		7.9 8.0	590 587	--	--	96 4.18 73	--	0 .00	306 5.02	--	32 .90	--	--	--		78	4.7
08/01/73 1545	5050 5050	06N/04W-15Q01 M	68 F 20 C	7.1 8.0	250 249	9.3 .46 19	4.9 .40 16	34 1.48 60	4.8 .12 5	0 .00	134 2.20 86	8.2 .17 7	6.6 .19 7	.4 .01	.10 --	202 134	43 0	2.2	
08/02/73 0900	5050 5050	07N/05W-06F01 M		7.5 8.1	320 313	--	--	27 1.17 35	--	0 .00	180 2.95	--	6.7 .19	--	--	--		109	1.1
08/02/73 1030	5050 5050	08N/06W-06L05 M	76 F 24 C	7.3 8.0	275 279	--	--	45 1.96 73	--	0 .00	137 2.25	--	6.9 .19	--	--	--		37	3.2
08/02/73 1130	5050 5050	09N/07W-25N01 M	82 F 28 C	7.7 7.8	1000 973	--	--	180 7.83 89	--	0 .00	185 3.03	--	201 5.67	--	--	--		46	11.6
2-02.02		SONOMA VALLEY																	
07/30/73 1315	5050 5050	04N/05W-14D02 M	77 F 25 C	7.3 8.1	1025 1020	13 .65 6	9.1 .75 7	196 8.53 85	3.2 .08 1	0 .00	310 5.08 51	51 1.06 11	132 3.72 38	.4 .01	.10 --	635 557	70 0	10.2	
05/16/73 5117 5050	5117 5050	04N/05W-34D80 M		7.8 2750	64 3.19 12	72 5.92 23	385 16.75 64	14 .36 1	0 .00	610 10.00 38	.0 .00	561 15.82 60	32.0 .52 2	1.90 56.0	.1 1486	1520 450 0	450 0	7.8	

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER									
				CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	PERCENT REACTANCE VALUE	B	F	TDS SUM	TH NCH	SAR					
.....																							
2-00.00		SAN FRANCISCO BAY REGION																					
2-02.00		NAPA-SONOMA VALLEY																					
2-02.02		SONOMA VALLFY																					
07/30/73 1415	5050	M	70	F	8.2	1125	--	--	223	--	11	436	--	91	--	--	--	70					
	5050		21	C	8.5	1070			9.70		.37	7.15		2.57		--	--		11.6				
								87															
07/30/73 1515	5050	M	64	F	7.0	460	19	18	51	1.6	0	227	9.5	30	3.3	.70	--	290	122				
	5050		18	C	8.1	464	.95	1.48	2.22	.04	.00	3.72	.20	.85	.05	--	--	245	0	2.0			
						20		32		47		1											
07/30/73 1630	5050	M	84	F	8.3	545	--	--	128	--	0	316	--	21	--	--	--	12					
	5050		29	C	8.3	562			5.57		.00	5.18		.59		--	--		16.1				
								96															
2-03.00		SUISUN-FAIRFIELD VALLEY																					
07/18/73 1530	5050	M			8.7	1175	--	--	254	--	0	546	--	73	--	--	--	46					
	5050				8.2	1140			11.05		.00	8.95		2.06		--	--		16.3				
								92															
07/18/73 1630	5050	M			7.3	1025	--	--	128	--	0	242	--	157	--	--	--	215					
	5050				8.0	1020			5.57		.00	3.97		4.43		--	--		3.8				
								56															
07/19/73 1015	5050	M			7.7		--	--	650	--	0	599	--	859	--	--	--	425					
	5050				8.1	3660			28.28		.00	9.82		24.22		--	--		13.7				
								77															
07/19/73 1200	5050	M			7.9		--	--	--	--	--	--	--	977	--	--	--						
	5050					3560								27.55		--	--						
07/19/73 1315	5050	M			7.3	2000	--	--	206	--	0	233	--	485	--	--	--	462					
	5050				7.9	1910			8.96		.00	3.82		13.68		--	--		4.2				
								49															
07/19/73 1430	5050	M	68	F	7.5	825	--	--	59	--	0	294	--	102	--	--	--	283					
	5050		20	C	7.8	811			2.57		.00	4.82		2.88		--	--		1.5				
								31															
07/18/73 1315	5050	M	65	F	7.3	1400	94	37	119	.2	0	333	26	221	39.0	1.30	--	789	386				
	5050		18	C	7.8	1320	4.69	3.04	5.18	.01	.00	5.46	.54	6.23	.63	--	--	701	114	2.6			
						36		24		40				48		5							
07/18/73 1400	5050	M	64	F	7.5	2000	84	47	188	.6	0	328	54	336	21.0	3.80	--	966	404				
	5050		18	C	7.5	1700	4.19	3.87	8.18	.02	.00	5.38	1.12	9.48	.34	--	--	896	134	4.1			
						26		24		50				58		2							
07/19/73 1530	5050	M	66	F	7.3	1025	--	--	67	--	0	454	--	57	--	--	--	427					
	5050		19	C	8.1	985			2.91		.00	7.44		1.61		--	--		1.4				
								25															
07/19/73 1600	5050	M			7.5	1400	35	40	192	.0	0	528	164	39	16.0	1.90	--	732	253				
	5050				8.2	1230	1.75	3.29	8.35	.00	.00	8.65	3.41	1.10	.26	--	--	748	0	5.3			
						13		25		62				8		2							
2-04.00		PITTSBURG PLAIN																					
08/09/73 1145	5050	M	69	F	7.7	4000	--	--	385	--	0	383	--	479	--	--	--	746					
	5050		21	C	8.1	2950			16.75		.00	6.28		13.51		--	--		6.1				
								53															
08/02/73 1430	5050	M	67	F	7.9	3300	--	--	418	--	0	395	--	602	--	--	--	522					
	5050		19	C	7.9	2840			18.18		.00	6.47		16.98		--	--		8.0				
								64															
2-05.00		CLAYTON VALLEY																					
08/02/73 1630	5050	M			7.5	1020	83	54	50	.5	0	382	130	54	33.0	.50	--	605	431				
	5050				8.3	997	4.14	4.44	2.18	.01	.00	6.26	2.71	1.52	.53	--	--	593	116	1.1			
						38		41		20				14		5							
08/09/73 1030	5050	M	67	F	7.9	1050	--	--	121	--	0	350	--	138	--	--	--	232					
	5050		19	C	8.1	985			5.26		.00	5.74		3.89		--	--		3.5				
								53															
08/03/73 0845	5050	M	65	F	7.2	1300	--	--	121	--	0	357	--	135	--	--	--	351					
	5050		18	C	8.1	1200			5.26		.00	5.85		3.81		--	--		2.8				
								43															
2-06.00		YGNACIO VALLEY																					
08/03/73 0930	5050	M			7.4	2500	--	--	272	--	0	411	--	202	--	--	--	610					
	5050				8.2	2240			11.83		.00	6.74		5.70		--	--		4.8				
								49															

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					
					CA	MG	NA	K	CO3	HCO3	SO4	CL	PERCENT REACTANCE VALUE	NO3	B	F	TDS SUM	TM NCH	SAR	
2-00.00 2-06.00		SAN FRANCISCO BAY REGION YGNACIO VALLEY																		
08/03/73 1015	5050 5050	01N/02W-11N01 M	68	F	7.5	1450	73	39	142	2.6	0	472	43	165	.6	1.40	--	690	344	3.3
			20	C	7.9	1290	3.64 28	3.21 25	6.18 47	.07 1	.00	7.74 58	.90 7	4.65 35	.01	--	699	0		
08/03/73 1100	5050 5050	02N/02W-35D01 M	65	F	7.4	3500	--	--	272	--	0	482	--	395	--	--	--		863	4.0
			18	C	7.9	2720			11.83 41		.00	7.90		11.14	--	--				
2-09.00		SANTA CLARA VALLEY																		
08/14/73 1030	5100 5050	2-09.01 01S/04W-04A01 M	66	F			--	--	115	--	0	384	--	221	--	--	--		512	2.2
			19	C	7.8	1480			5.00 33		.00	6.29		6.23	--	--				
08/14/73 1100	5100 5050	01S/04W-34F02 M	65	F			28	35	133	1.8	0	261	30	176	12.0	.20	--	573	214	4.0
			18	C	8.4	1040	1.40 14	2.88 28	5.79 57	.05	.00	4.28 43	.62 6	4.96 49	.19 2	--	544	0		
08/14/73 1220	5100 5050	02S/03W-28G01 M			7.5	67	--	--	2.7	--	0	30	--	2.4	--	--	--		27	0.2
									.12 18		.00	.49		.07	--	--				
08/14/73 1240	5100 5050	02S/04W-25A01 M	64	F			40	17	117	1.8	0	299	44	90	.1	.40	--	490	168	3.9
			18	C	8.3	834	2.00 23	1.40 16	5.09 60	.05 1	.00	4.90 59	.92 11	2.54 30	.00	--	457	0		
08/14/73 1400	5100 5050	03S/02W-07J01 M	64	F			--	--	71	--	0	387	--	67	--	--	--		367	1.6
			18	C	7.6	965			3.09 30		.00	6.34		1.89	--	--				
08/14/73 1450	5100 5050	03S/02W-32D02 M	74	F			--	--	142	--	0	2	--	94	--	--	--		278	3.7
			23	C	4.4	2080			6.18 53		.00	.03		2.65	--	--				
08/14/73 1500	5100 5050	03S/03W-24J01 M	65	F			--	--	--	--	--	--	--	505	--	--	--			
			18	C		2620								14.24	--	--				
09/18/73 0945	5401 5050	04S/01W-07R05 M	66	F	7.3	1700	--	--	104	--	0	342	--	326	--	--	--		636	1.8
			19	C	8.1	1730			4.52 26		.00	5.61		9.19	--	--				
09/18/73 0850	5401 5050	04S/01W-21P06 M	64	F	7.8	700	--	--	45	--	0	211	--	49	--	--	--		188	1.4
			18	C	7.9	573			1.96 34		.00	3.46		1.38	--	--				
09/18/73 1000	5401 5050	04S/01W-27K01 M	64	F	8.2	2100	--	--	449	--	51	810	--	174	--	--	--		376	10.1
			18	C	8.6	2440			19.53 72		1.70	13.28		4.91	--	--				
09/18/73 1010	5401 5050	04S/01W-28C01 M	64	F	7.8	800	34	30	55	1.5	0	167	62	82	10.0	.50	--	383	209	1.7
			18	C	8.0	671	1.70 26	2.47 37	2.39 36	.04 1	.00	2.74 42	1.29 20	2.31 36	.16 2	--	357	72		
09/18/73 1545	5401 5050	04S/01W-30E03 M	64	F	7.6	1900	--	--	110	--	0	79	--	684	--	--	--		898	1.6
			18	C	7.5	2450			4.79 21		.00	1.29		19.29	--	--				
09/19/73 1000	5401 5050	04S/01W-33A02 M	64	F	7.7	1400	--	--	71	--	0	254	--	143	--	--	--		364	1.6
			18	C	7.7	1050			3.09 30		.00	4.16		4.03	--	--				
09/18/73 0830	5401 5050	04S/01W-33C01 M	65	F	7.3	1800	--	--	172	--	0	423	--	177	--	--	--		447	3.5
			18	C	7.8	1570			7.48 46		.00	6.93		4.99	--	--				
09/18/73 1445	5401 5050	04S/01W-34Q04 M	75	F	7.4	1600	94	55	116	1.9	0	392	59	194	81.0	.20	--	814	462	2.4
			24	C	7.9	1400	4.69 33	4.52 32	5.05 35	.05	.00	6.42 44	1.23 9	5.47 38	1.31 9	--	794	140		
09/18/73 1500	5401 5050	04S/01W-34R02 M	69	F	8.1	750	--	--	75	--	0	254	--	42	--	--	--		124	2.9
			21	C	8.2	555			3.26 57		.00	4.16		1.18	--	--				
09/18/73 1140	5401 5050	04S/02W-10C01 M	68	F	7.9	800	--	--	55	--	0	199	--	47	--	--	--		166	1.9
			20	C	7.9	572			2.39 42		.00	3.26		1.33	--	--				
09/18/73 1110	5401 5050	04S/02W-11Q10 M	67	F	7.8	950	--	--	45	--	0	183	--	113	--	--	--		294	1.1
			19	C	7.8	802			1.96 25		.00	3.00		3.19	--	--				

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	R	F	TDS SUM	TH NCH	SAR	
2-00.00 2-09.00																		
SAN FRANCISCO BAY REGION SANTA CLARA VALLEY																		
2-09.01 045/02W-23F02																		
09/19/73 0845	5401 5050	M	66 F 7.8 1500	135	61	57	3.0	0	131	95	347	13.0	.30	--	1210	589	1.0	
			19 C 7.5 1520	6.74 47	5.02 35	2.48 17	.08 1	.00	2.15 15	1.98 14	9.79 69	.21 1	--	776	481			
09/18/73 1450	5401 5050	M	68 F 8.1 700	--	--	109	--	0	291	--	40	--	--	--		105	4.6	
			20 C 8.3 636			4.74 69		.00	4.77		1.13		--	--				
09/18/73 1430	5401 5050	M	72 F 8.0 800	--	--	119	--	0	278	--	48	--	--	--		79	5.8	
			22 C 8.3 669			5.18 77		.00	4.56		1.35		--	--				
09/18/73 1420	5401 5050	M	74 F 8.4 700	--	--	128	--	11	343	--	21	--	--	--		90	5.9	
			23 C 8.5 666			5.57 76		.37	5.62		.59		--	--				
09/18/73 1400	5401 5050	M	70 F 8.2 700	--	--	110	--	0	295	--	21	--	--	--		66	5.9	
			21 C 8.3 573			4.79 78		.00	4.84		.59		--	--				
09/18/73 1430	5401 5050	M	75 F 8.3 500	--	--	95	--	0	224	--	15	--	--	--		23	8.6	
			24 C 8.3 438			4.13 90		.00	3.67		.42		--	--				
09/19/73 1400	5401 5050	M	66 F 8.1 500	--	--	68	--	0	231	--	14	--	--	--		93	3.1	
			19 C 8.2 440			2.96 61		.00	3.79		.39		--	--				
2-09.02 055/01E-31R01																		
08/10/73 1100	5050 5050	M	7.3 1800	106	59	125	.4	0	459	76	149	123	.20	--	958	506	2.4	
			7.5 1500	5.29 34	4.85 31	5.44 35	.01	.00	7.52 49	1.58 10	4.20 27	1.98 13	--	--	864	131		
08/14/73 1000	5050 5050	M	68 F 7.5 750	80	30	31	1.6	0	303	73	43	9.1	.10	--	408	324	0.8	
			20 C 7.9 741	3.99 51	2.47 31	1.35 17	.04 1	.00	4.97 63	1.52 19	1.21 15	.15 2	--	--	417	75		
08/17/73 1015	5050 5050	M	68 F 7.2 500	--	--	28	--	0	182	--	30	--	--	--		193	0.9	
			20 C 8.2 511			1.22 24		.00	2.98		.85		--	--				
08/16/73 1330	5050 5050	M	64 F 7.5 700	58	40	28	1.1	0	326	69	18	14.0	.10	--	393	311	0.7	
			18 C 7.9 688	2.89 39	3.29 44	1.22 16	.03	.00	5.34 71	1.44 19	.51 7	.23 3	--	--	388	42		
08/16/73 1045	5050 5050	M	7.7 535	--	--	22	--	0	244	--	17	--	--	--		236	0.6	
			8.1 529			.96 17		.00	4.00		.48		--	--				
08/16/73 1200	5050 5050	M	63 F 7.3 740	--	--	31	--	0	310	--	23	--	--	--		312	0.8	
			17 C 8.0 715			1.35 18		.00	5.08		.65		--	--				
06/28/73 1600	5050 5050	M	64 F 7.1 1800	82	54	100	1.1	0	314	124	156	41.0	.40	--	742	428	2.1	
			18 C 7.6 1280	4.09 32	4.44 34	4.35 34	.03	.00	5.15 40	2.58 20	4.40 34	.66 5	--	--	713	169		
2-10.00 LIVERMORE VALLEY																		
08/20/73 1245	5100 5050	M	74 F	--	--	626	--	0	430	--	1120	--	--	--		746	10.0	
			23 C 8.2 4300			27.23 65		.00	7.05		31.58		--	--				
08/20/73 1300	5100 5050	M	65 F	40	20	110	1.6	9.0	315	34	74	.2	.50	--	469	182	3.5	
			18 C 8.5 795	2.00 24	1.64 19	4.79 57	.04	.30	5.16 62	.71 9	2.09 25	.00	--	--	444	0		
08/20/73 0950	5100 5050	M	62 F	--	--	74	--	0	416	--	154	--	--	--		508	1.4	
			17 C 8.2 1270			3.22 24		.00	6.82		4.34		--	--				
08/20/73 1010	5100 5050	M	72 F	--	--	51	--	0	335	--	79	--	--	--		338	1.2	
			22 C 8.0 851			2.22 25		.00	5.49		2.23		--	--				
08/20/73 1030	5100 5050	M	64 F	50	28	67	1.0	0	298	32	69	.2	.90	--	406	239	1.9	
			18 C 8.0 729	2.50 32	2.30 30	2.91 38	.03	.00	4.88 65	.67 9	1.95 26	.00	--	--	395	0		

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD		MINERAL	CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
			LABORATORY PH	EC		CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR
.....																			
2-00.00		SAN FRANCISCO BAY REGION																	
2-10.00		LIVERMORE VALLEY																	
03S/01E-19A05		M																	
08/20/73 1345	5100	60	F		56	30	32	1.5	0	253	55	40	5.6	.30	--	352	262		
	5050	16	C	8.0	631	2.79	2.47	1.39	.04	.00	4.15	1.15	1.13	.09	--	345	56	0.9	
					42	37	21	1			64	18	17	1					
03S/02E-29001		M																	
08/20/73 1045	5100	66	F		--	--	48	--	0	280	--	60	--	--	--		284		
	5050	19	C	8.1	741		2.09		.00	4.59		1.69		--	--			1.2	
							27												
03S/03E-19C01		M																	
08/20/73 1130	5100	80	F		--	--	121	--	0	296	--	194	--	--	--		308		
	5050	27	C	7.7	1170		5.26		.00	4.85		5.47		--	--			3.0	
							46												
2-22.00		HALF MOON BAY TERRACE																	
05S/05W-20E01		M																	
05/23/73 0930	5050	61	F	7.1	490	38	17	40	.5	0	116	42	56	32.0	.00	--	347	164	
	5050	16	C	8.0	577	1.90	1.40	1.74	.01	.00	1.90	.87	1.58	.52	--	283	70	1.4	
						38	28	34			39	18	32	11					
05S/05W-32D01		M																	
05/23/73 1030	5050	60	F	7.1	900	59	23	136	1.2	0	198	90	190	26.0	.00	--	663	241	
	5050	16	C	8.2	1160	2.94	1.89	5.92	.03	.00	3.25	1.87	5.36	.42	--	623	79	3.8	
						27	18	55			30	17	49	4					
2-24.00		SAN GREGORIO VALLEY																	
07S/05W-15B01		M																	
06/07/73 1315	5050	76	F	6.8	1600	115	66	154	1.4	0	214	294	270	28.0	.20	--	1220	560	
	5050	24	C	8.2	1770	5.74	5.43	6.70	.04	.00	3.51	6.12	7.61	.45	--	1034	383	2.8	
						32	30	37			20	35	43	3					
07S/05W-15E01		M																	
05/30/73 1445	5050			7.2	1200	53	54	206	1.4	16	349	148	242	12.0	.60	--	906	356	
	5050			8.5	1570	2.64	4.44	8.96	.04	.53	5.72	3.08	6.82	.19	--	905	42	4.8	
						16	28	56		3	35	19	42	1					
2-26.00		PESCAOERO VALLEY																	
08S/05W-09J01		M																	
05/30/73 1530	5050	63	F	7.0	950	17	38	117	2.2	4.0	267	17	156	1.7	.20	--	490	198	
	5050	17	C	8.3	932	.85	3.13	5.09	.06	.13	4.38	.35	4.40	.03	--	484	0	3.6	
						9	34	56	1	1	47	4	47						
08S/05W-10M01		M																	
05/31/73 1100	5050	58	F	7.1	975	81	41	68	1.2	0	196	142	88	122	.00	--	730	371	
	5050	14	C	8.1	1080	4.04	3.37	2.96	.03	.00	3.21	2.96	2.48	1.97	--	640	210	1.5	
						39	32	28			30	28	23	19					

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	R	F	TDS SUM	TH NCM	SAR	
																			PERCENT
.....																			
3-00.00		CENTRAL COASTAL REGION																	
3-01.00		SOQUEL VALLEY																	
06/19/73 1400	5050 5050	M 19	F C	7.5	355	26	21	18	2.4	1.0	169	20	18	.7	.00	--	229	150	0.6
				8.3	364	1.30	1.73	.78	.06	.03	2.77	.42	.51	.01	--	--	190	12	
06/14/73 1300	5050 5050	M 19	F C	7.5	1150	88	43	62	8.0	0	202	76	199	10.0	.00	--	763	396	1.4
				8.2	1120	4.39	3.54	2.70	.20	.00	3.31	1.58	5.61	.16	--	--	585	231	
06/14/73 1345	5050 5050	M 22	F C	7.5	750	27	25	68	3.7	1.0	238	102	28	2.1	.30	--	407	171	2.3
				8.3	669	1.35	2.06	2.96	.09	.03	3.90	2.12	.79	.03	--	--	374	0	
3-03.00		GILROY-HOLLISTER VALLEY																	
3-03.01		SOUTH SANTA CLARA COUNTY																	
08/22/73 5050	5114 5050	M 20	F C	7.7	462	40	24	25	--	0	190	--	25	45.0	--	--		201	0.8
				8.1	495	2.00	1.97	1.09		.00	3.11		.71	.73	--	--		43	
08/07/73 5050	5114 5050	M 19	F C	7.6	577	.7	.6	144	.0	10	271	26	22	26.0	.00	--	407	4	30.5
				8.6	633	.03	.05	6.26	.00	.33	4.44	.54	.62	.42	--	--	363	0	
09/18/73 0935	5050 5050	M 19	F C	7.9	490	--	--	19	.1	0	166	--	--	--	--	--			
					534			.83	.00	.00	2.72				--	--			
09/18/73 0815	5050 5050	M 19	F C	7.8	430	--	--	16	.0	0	190	.24	--	--	--	--			
					472			.70	.00	.00	3.11	.50			--	--			
09/18/73 0830	5050 5050	M 19	F C	7.5	440	--	--	16	.0	0	186	22	--	--	--	--			
					465			.70	.00	.00	3.05	.46			--	--			
09/18/73 0905	5050 5050	M 19	F C	7.7	700	--	--	37	.3	0	405	--	--	--	--	--			
					758			1.61	.01	.00	6.64				--	--			
09/18/73 0955	5050 5050	M 19	F C	7.9	500	--	--	15	.0	0	249	--	--	--	--	--			
					528			.65	.00	.00	4.08				--	--			
08/22/73 5050	5114 5050	M 19	F C	7.7	397	40	25	12	--	0	210	--	12	16.0	--	--		203	0.4
				8.3	425	2.00	2.06	.52		.00	3.44		.34	.26	--	--		31	
09/18/73 1025	5050 5050	M 19	F C	7.9	490	--	--	13	.0	0	237	--	--	--	--	--			
					518			.57	.00	.00	3.88				--	--			
08/22/73 5050	5114 5050	M 17	F C	7.4	408	39	27	13	.6	2.0	216	24	14	10.0	.10	--	256	209	0.4
				8.4	442	1.95	2.22	.57	.02	.07	3.54	.50	.39	.16	--	--	236	28	
08/21/73 5050	5114 5050	M 18	F C	7.4	508	51	34	14	--	0	254	--	28	19.0	--	--		266	0.4
				8.1	554	2.54	2.80	.61		.00	4.16		.79	.31	--	--		59	
08/07/73 5050	5114 5050	M 18	F C	7.5	581	29	56	16	--	8.0	251	--	40	33.0	--	--		302	0.4
				8.5	617	1.45	4.61	.70		.27	4.11		1.13	.53	--	--		84	
08/07/73 5050	5114 5050	M 21	F C	7.6	519	39	33	21	.3	5.0	183	26	38	46.0	.00	--	335	235	0.6
				8.4	560	1.95	2.71	.91	.01	.17	3.00	.54	1.07	.74	--	--	298	75	
08/07/73 5050	5114 5050	M 20	F C	7.3	453	39	28	19	--	0	180	--	30	36.0	--	--		215	0.6
				8.3	490	1.95	2.30	.83		.00	2.95		.85	.58	--	--		65	
08/21/73 5050	5114 5050	M 22	F C	7.6	824	49	46	73	--	6.0	345	--	96	12.0	--	--		311	1.8
				8.4	875	2.45	3.78	3.18		.20	5.65		2.71	.19	--	--		19	
08/21/73 5050	5114 5050	M 18	F C	7.5	486	44	30	19	--	2.0	208	--	25	35.0	--	--		233	0.5
				8.4	521	2.20	2.47	.83		.07	3.41		.71	.56	--	--		60	
08/21/73 5050	5114 5050	M 21	F C	7.8	428	42	22	22	--	5.0	190	--	20	28.0	--	--		194	0.7
				8.5	462	2.10	1.81	.96		.17	3.11		.56	.45	--	--		32	

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
			LABORATORY PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR		
3-00.00 3-03.00																				
CENTRAL COASTAL REGION GILROY-HOLLISTER VALLEY																				
3-03.01 105/04E-28D02																				
08/21/73	5114 5050	M	69	F	7.8	491	28	34	32	--	0	237	--	26	23.0	--	--	210		
			21	C	8.3	524	1.40	2.80	1.39		.00	3.88		.73	.37	--	--	16	1.0	
							25	50	25			78		15	7					
08/25/73	5114 5050	M	66.5F				39	30	22	.9	1.0	192	35	26	40.0	.00	--	315	219	
			19.1C	8.3	525	1.95	2.47	.96	.02	.03	3.15	.73	.73	.65	--	--	288	62	0.6	
						36	46	18			1	60	14	14	12					
08/21/73	5114 5050	M	67	F	7.3	670	50	37	44	--	10	266	--	46	43.0	--	--	277		
			19	C	8.6	701	2.50	3.04	1.91		.33	4.36		1.30	.69	--	--	43	1.2	
							34	41	26											
08/21/73	5114 5050	M	65	F	7.3	1005	62	59	50	1.0	0	359	86	52	75.0	.10	--	560	396	
			18	C	8.3	988	3.09	4.85	2.18	.03	.00	5.88	1.79	1.47	1.21	--	--	562	103	1.1
							30	48	21			57	17	14	12					
08/22/73	5114 5050	M	64	F	7.2	753	70	50	23	--	0	306	--	28	82.0	--	--	383		
			18	C	8.1	801	3.49	4.11	1.00		.00	5.02		.79	1.32	--	--	129	0.5	
							41	48	12			70		11	19					
08/20/73	5114 5050	M	68	F	7.4	698	71	43	23	--	0	265	--	72	76.0	--	--	354		
			20	C	8.3	746	3.54	3.54	1.00		.00	4.34		2.03	1.23	--	--	137	0.5	
							44	44	12			57		27	16					
08/20/73	5114 5050	M	67	F	7.6	742	53	43	27	1.1	0	305	46	34	29.0	.00	--	426	310	
			19	C	8.1	711	2.64	3.54	1.17	.03	.00	5.00	.96	.96	.47	--	--	383	59	0.7
							36	48	16			68	13	13	6					
08/20/73	5114 5050	M	67	F	7.6	724	66	40	32	1.0	0	310	72	34	36.0	.10	--	476	329	
			19	C	8.3	767	3.29	3.29	1.39	.03	.00	5.08	1.50	.96	.58	--	--	434	75	0.8
							41	41	17			63	18	12	7					
08/20/73	5114 5050	M	68	F	7.5	813	63	45	31	1.3	0	311	76	38	39.0	.10	--	506	341	
			20	C	8.2	815	3.14	3.70	1.35	.03	.00	5.10	1.58	1.07	.63	--	--	446	87	0.7
							38	45	16			61	19	13	8					
08/20/73	5114 5050	M	66	F	7.6	744	79	44	26	--	0	329	--	31	57.0	--	--	379		
			19	C	8.1	795	3.94	3.62	1.13		.00	5.39		.87	.92	--	--	109	0.6	
							45	42	13			75		12	13					
3-03.02 125/05E-01F06																				
05/10/73	5050 0735	M			7.0		150	98	114	2.2	0	516	78	341	58.0	1.50	--	1180	776	
					7.1	2020	7.49	8.06	4.96	.06	.00	8.46	1.62	9.62	.94	--	--	1096	355	1.8
							36	39	24			41	8	47	5					
05/10/73	5050 0750	M			7.0		83	51	100	2.3	0	502	48	129	3.1	2.60	--	731	416	
					7.5	1260	4.14	4.19	4.35	.06	.00	8.23	1.00	3.64	.05	--	--	666	5	2.1
							32	33	34			64	8	28						
05/10/73	5050 0820	M			7.8		45	46	120	2.1	0	359	163	73	2.0	1.00	--	643	303	
					7.8	1080	2.25	3.78	5.22	.05	.00	5.88	3.39	2.06	.03	--	--	629	8	3.0
							20	33	46			52	30	18						
05/10/73	5050 0840	M			7.4		74	99	195	3.0	0	452	423	157	.9	1.20	--	1200	591	
					7.6	1860	3.69	8.14	8.48	.08	.00	7.41	8.81	4.43	.01	--	--	1175	221	3.5
							18	40	42			36	43	21						
05/10/73	5050 0900	M			7.2		101	141	245	4.1	0	544	509	251	65.0	1.60	--	1620	832	
					7.4	2430	5.04	11.60	10.66	.10	.00	8.92	10.60	7.08	1.05	--	--	1585	386	3.7
							18	42	39			32	38	26	4					
05/10/73	5050 1000	M			7.6		51	29	46	1.9	0	256	29	78	.0	1.70	--	418	249	
					7.7	711	2.54	2.38	2.00	.05	.00	4.20	.60	2.20	.00	--	--	362	36	1.3
							36	34	29			60	9	31						
05/16/73	5050 0850	M	78.0F	7.8	975	39	34	135	2.6	0	272	185	87	1.1	1.10	--	654	236		
			25.5C	7.8	1060	1.95	2.80	5.87	.07	.00	4.46	3.85	2.45	.02	--	--	619	15	3.8	
						18	26	55	1		41	36	23							
05/10/73	5050 1025	M			7.4		60	70	130	2.6	0	361	260	113	11.0	.90	--	849	437	
					7.6	1350	2.99	5.76	5.66	.07	.00	5.92	5.41	3.19	.18	--	--	825	142	2.7
							21	40	39			40	37	22	1					
05/16/73	5050 0950	M	70.0F	7.4	1400	64	83	142	2.6	0	436	290	110	9.7	1.00	--	952	502		
			21.1C	7.9	1500	3.19	6.83	6.18	.07	.00	7.15	6.04	3.10	.16	--	--	917	144	2.8	
							20	42	38			43	37	19	1					
05/10/73	5050 1220	M			7.6		52	70	190	4.4	0	502	231	120	5.7	1.00	--	954	416	
					7.6	1520	2.59	5.76	8.27	.11	.00	8.23	4.81	3.38	.09	--	--	921	6	4.0
							15	34	49			50	29	20	1					

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER				MILLIGRAMS PER LITER				
			PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	8	F	TDS	TH	SAR			
CENTRAL COASTAL REGION																					
GILROY-HOLLISTER VALLEY																					
SAN BENITO COUNTY																					
05/16/73 1035	5050 5050	M	3-00.00	72.0F	7.4	960	46	47	108	2.6	0	316	183	74	4.4	.90	--	665	310		
			3-03.00	22.2C	8.0	1070	2.30	3.87	4.70	.07	.00	5.18	3.81	2.09	.07	--	--	621	50	2.7	
							21	35	43	1		46	34	19	1						
05/10/73 1245	5050 5050	M	135/05E-04E01	7.0		40	47	69	.7	0	178	16	167	59.0	.00	--	593	294			
				7.2	956	2.00	3.87	3.00	.02	.00	2.92	.33	4.71	.95	--	--	486	148	1.8		
						22	44	34			33	4	53	11							
05/16/73 1120	5050 5050	M	135/05E-13F02	69.0F	7.4	1450	58	81	159	3.1	0	384	307	130	27.0	1.10	--	1000	482		
				20.5C	7.8	1560	2.89	6.66	6.92	.08	.00	6.29	6.39	3.67	.44	--	--	955	163	3.2	
						17	40	42			37	38	22	3							
SALINAS VALLEY																					
PRESSURE AREA																					
07/13/73	5115 5050	M	3-04.01			800	52	39	74	4.1	0	247	44	137	21.0	.00	--	531	289		
				7.5	982	2.59	3.21	3.22	.10	.00	4.05	.92	3.86	.34	--	--	493	88	1.9		
						28	35	35	1		44	10	42	4							
08/13/73	5115 5050	M	135/02F-33R01	64.0F		950	101	39	71	3.2	0	258	90	174	3.7	.00	--	635	411		
				17.8C	7.8	1170	5.04	3.21	3.09	.08	.00	4.23	1.87	4.91	.06	--	--	609	201	1.5	
						44	28	27	1		38	17	44	1							
08/13/73	5115 5050	M	135/02E-35L01			460	34	18	48	2.6	0	234	5.8	43	2.0	.00	--	289	160		
				7.9	548	1.70	1.48	2.09	.07	.00	3.84	.12	1.21	.03	--	--	268	0	1.7		
						32	28	39	1		74	2	23	1							
08/13/73	5115 5050	M	135/02E-36J01			430	46	13	39	1.9	0	241	5.9	30	.0	.00	--	288	168		
				7.6	487	2.30	1.07	1.70	.05	.00	3.95	.12	.85	.00	--	--	254	0	1.3		
						45	21	33	1		80	2	17								
08/06/73	5115 5050	M	145/02E-02M01	64.0F		490	55	40	74	2.4	0	454	8.2	58	.9	.00	--	467	301		
				17.8C	7.9	748	2.74	3.29	3.22	.06	.00	7.44	.17	1.64	.01	--	--	462	0	1.9	
						29	35	35	1		80	2	18								
08/13/73	5115 5050	M	145/02E-23A01	68.0F		790	82	30	74	3.1	0	293	66	122	1.2	.10	--	560	326		
				20.0C	7.7	982	4.09	2.47	3.22	.08	.00	4.80	1.37	3.44	.02	--	--	522	88	1.8	
						41	25	33	1		50	14	36								
08/20/73	5115 5050	M	145/02E-23J01	68.0F		1010	83	47	91	4.6	0	218	181	158	1.0	.20	--	730	401		
				20.0C	7.7	1220	4.14	3.87	3.96	.12	.00	3.57	3.77	4.46	.02	--	--	673	222	2.0	
						34	32	33	1		30	32	38								
08/20/73	5115 5050	M	145/02E-35G01	70 F		400	60	14	32	3.5	0	165	85	35	1.2	.00	--	355	209		
				21 C	7.9	586	2.99	1.15	1.39	.09	.00	2.70	1.77	.99	.02	--	--	312	72	1.0	
						53	20	25	2		49	32	18								
08/29/73	5115 5050	M	145/02E-35Q01	62.0F		350	54	13	27	2.9	0	163	82	15	1.3	.00	--	320	188		
				16.7C	7.9	512	2.69	1.07	1.17	.07	.00	2.67	1.71	.42	.02	--	--	275	55	0.9	
						54	21	23	1		55	35	9								
08/29/73	5115 5050	M	145/02E-36E01	62.0F		1500	210	80	85	6.3	0	352	432	201	.1	.10	--	1340	852		
				16.7C	7.5	1830	10.48	6.58	3.70	.16	.00	5.77	8.99	5.67	.00	--	--	1188	565	1.3	
						50	31	18	1		28	44	28								
08/21/73	5115 5050	M	145/03E-19002	64.0F		925	90	43	88	3.2	0	352	48	174	14.0	.00	--	609	402		
				17.8C	7.7	1140	4.49	3.54	3.83	.08	.00	5.77	1.00	4.91	.23	--	--	633	113	1.9	
							38	30	32	1		48	8	41	2						
08/08/73	5115 5050	M	145/03E-24N01	66.0F		475	36	14	54	1.2	0	148	4.6	77	36.0	.00	--	347	148		
				18.9C	7.7	638	1.80	1.15	2.35	.03	.00	2.43	.10	2.17	.58	--	--	296	26	1.9	
						34	22	44	1		46	2	41	11							
07/30/73	5115 5050	M	145/03E-31Q02	69.8F		425	41	12	30	2.7	0	152	70	10	.5	.00	--	274	152		
				21.0C	7.9	462	2.05	.99	1.31	.07	.00	2.49	1.46	.28	.01	--	--	241	28	1.1	
						46	22	30	2		59	34	7								
08/17/73	5115 5050	M	155/03E-07002			340	50	13	24	2.7	0	161	72	12	1.1	.00	--	290	179		
				7.9	476	2.50	1.07	1.04	.07	.00	2.64	1.50	.34	.02	--	--	254	47	0.8		
						53	23	22	1		59	33	8								
08/10/73	5115 5050	M	16S/04E-24A01			1500	145	76	132	4.9	0	322	444	126	65.0	.40	--	1290	674		
				7.7	1770	7.24	6.25	5.74	.13	.00	5.28	9.24	3.55	1.05	--	--	1152	411	2.2		
						37	32	30	1		28	48	19	5							
08/15/73	5115 5050	M	16S/04E-25Q01	60.0F		750	92	33	56	3.8	0	300	160	46	19.0	.20	--	589	366		
				15.5C	8.1	938	4.59	2.71	2.44	.10	.00	4.92	3.33	1.30	.31	--	--	558	119	1.3	
						47	28	25	1		50	34	13	3							

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY		MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
			PH	EC	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR	
																		
3-00.00 3-04.00		CENTRAL COASTAL REGION SALINAS VALLEY																	
3-04.01 165/04E-27G01		PRESSURE AREA																	
08/27/73	5115	60.0F		650	105	29	33	3.9	0	282	157	37	2.1	.00	--	540	382	0.7	
	5050	15.5C	8.1	850	5.24 57	2.38 26	1.44 16	.10 1	.00	4.62 52	3.27 36	1.04 12	.03	--	506	150			
3-04.02 145/03E-36A01		EAST SIDE AREA																	
08/08/73	5115	60.0F		400	48	12	42	1.0	0	106	25	55	83.0	.00	--	339	169	1.4	
	5050	15.5C	7.6	607	2.40 46	.99 19	1.83 35	.03 1	.00	1.74 34	.52 10	1.55 30	1.34 26	--	318	83			
3-04.03 175/05E-09Q01		FOREBAY AREA																	
08/15/73	5115			450	64	22	27	2.7	0	211	97	25	.0	.00	--	369	251	0.7	
	5050		8.1	592	3.19 51	1.81 29	1.17 19	.07 1	.00	3.46 56	2.02 33	.71 11	.00	--	341	77			
08/23/73	5115	60.0F		895	84	37	96	2.9	0	260	231	71	12.0	.40	--	737	362	2.2	
	5050	15.5C	7.9	1080	4.19 36	3.04 26	4.18 36	.07 1	.00	4.26 38	4.81 43	2.00 18	.19 2	--	662	149			
08/23/73	5115	60.0F		700	108	30	40	4.4	0	248	190	44	21.0	.10	--	628	394	0.9	
	5050	15.5C	7.9	905	5.39 56	2.47 25	1.74 18	.11 1	.00	4.06 42	3.96 41	1.24 13	.34 4	--	559	190			
08/07/73	5115			800	55	30	112	2.9	0	220	222	71	6.5	.70	--	636	263	3.0	
	5050		8.3	1010	2.74 27	2.47 24	4.87 48	.07 1	.00	3.61 35	4.62 45	2.00 19	.10 1	--	608	80			
08/07/73	5115			860	93	35	58	5.5	0	124	267	78	19.0	.20	--	755	378	1.3	
	5050		7.9	1020	4.64 46	2.88 28	2.52 25	.14 1	.00	2.03 20	5.56 55	2.20 22	.31 3	--	617	275			
3-04.05 195/07E-13001		UPPER VALLEY AREA																	
08/27/73	5115	60.0F		1660	154	79	213	5.4	0	426	576	123	68.0	1.10	--	1530	711	3.5	
	5050	15.5C	7.9	2110	7.68 33	6.50 28	9.27 39	.14 1	.00	6.98 30	11.99 51	3.47 15	1.10 5	--	1429	360			
08/27/73	5115	60.0F		790	78	36	93	2.3	0	261	228	50	20.0	.40	--	676	344	2.2	
	5050	15.5C	7.9	1030	3.89 35	2.96 27	4.05 37	.06 1	.00	4.28 40	4.75 44	1.41 13	.32 3	--	636	129			
08/13/73	5115	64.0F		1010	114	49	74	2.4	0	227	209	157	29.0	.20	--	803	485	1.5	
	5050	17.8C	7.6	1280	5.69 44	4.03 31	3.22 25	.06	.00	3.72 29	4.35 34	4.43 34	.47 4	--	746	300			
08/01/73	5115	64.0F		2150	133	112	314	1.8	0	416	732	242	52.0	1.70	--	779	792	4.9	
	5050	17.8C	7.7	2690	6.64 22	9.21 31	13.66 46	.05	.00	6.82 23	15.24 51	6.82 23	.84 3	--	1793	452			
08/01/73	5115	64.0F		2800	132	158	417	5.8	0	335	1180	264	28.0	1.70	--	2610	981	5.8	
	5050	17.8C	7.6	3330	6.59 17	12.99 34	18.14 48	.15	.00	5.49 14	24.57 65	7.44 20	.45 1	--	2351	705			
08/02/73	5115	62.0F		650	56	31	70	1.4	0	312	109	28	16.0	.40	--	496	270	1.9	
	5050	16.7C	7.7	796	2.79 33	2.55 30	3.05 36	.04	.00	5.11 61	2.27 27	.79 9	.26 3	--	465	12			
08/01/73	5115	64.0F		1780	159	104	142	2.0	0	418	456	217	42.0	.40	--	1450	824	2.2	
	5050	17.8C	7.8	2090	7.93 35	8.55 38	6.18 27	.05	.00	6.85 30	9.49 41	6.12 26	.68 3	--	1328	482			
3-04.08 165/02E-04L01		SEASIDE AREA																	
07/27/73	5115	64.0F		1325	28	31	218	4.7	0	65	26	412	12.0	.10	--	898	198	6.8	
	5050	17.8C	7.4	1660	1.40 10	2.55 19	9.48 70	.12 1	.00	1.07 8	.54 4	11.62 87	.19 1	--	764	144			
3-07.00		CARMEL VALLEY																	
09/03/73	5115	65.0F		1010	121	61	74	4.4	0	134	465	80	1.2	.10	--	967	554	1.4	
	5050	18.3C	7.2	1440	6.04 42	5.02 35	3.22 22	.11 1	.00	2.20 16	9.68 68	2.26 16	.02	--	873	443			
07/27/73	5115	62.0F		900	118	39	65	4.1	0	118	392	58	.2	.10	--	825	456	1.3	
	5050	16.7C	7.3	1210	5.89 49	3.21 27	2.83 24	.10 1	.00	1.93 16	8.16 70	1.64 14	.00	--	734	359			
07/26/73	5115	62.0F		410	46	14	35	3.2	0	135	86	33	.3	.00	--	312	174	1.2	
	5050	16.7C	7.7	550	2.30 46	1.15 23	1.52 30	.08 2	.00	2.21 45	1.79 36	.93 19	.00	--	284	62			

TABLE E-1 (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR	
																			PERCENT REACTANCE VALUE
.....																			
3-00.00		CENTRAL COASTAL REGION																	
3-07.00		CARMEL VALLEY																	
07/26/73	5115 5050	16S/02E-19N01	M	56.0F	470	37	12	26	2.9	0	120	62	24	1.2	.00	--	261	144	1.0
				13.3C	8.2	416	1.85	.99	1.13	.07	.00	1.97	1.29	.68	.02	--	224	44	
						46	25	28	2			50	33	17	1				
07/26/73	5115 5050	16S/02E-32A01	M	60.0F	440	44	13	26	3.2	0	151	49	31	4.6	.00	--	287	165	0.9
				15.5C	8.1	463	2.20	1.07	1.13	.08	.00	2.47	1.02	.87	.07	--	245	40	
						49	24	25	2			56	23	20	2				
07/23/73	5115 5050	17S/03E-21M01	M	66.0F	980	112	36	83	4.3	0	368	156	100	.7	.00	--	734	430	1.7
				18.9C	8.0	1150	5.59	2.96	3.61	.11	.00	6.03	3.25	2.82	.01	--	673	126	
						46	24	29	1			50	27	23					
07/26/73	5115 5050	18S/04E-06A01	M	68.0F	850	116	32	62	4.3	0	340	158	76	4.9	.10	--	638	424	1.3
				20.0C	8.0	1070	5.79	2.63	2.70	.11	.00	5.57	3.29	2.14	.08	--	620	143	
						52	23	24	1			50	30	19	1				
08/27/73	5115 5050	16S/01W-13L01	M	61.0F	700	85	26	59	4.0	0	242	130	82	1.3	.00	--	530	321	1.4
				16.1C	7.9	912	4.24	2.14	2.57	.10	.00	3.97	2.71	2.31	.02	--	506	121	
						47	24	28	1			44	30	26					
08/27/73	5115 5050	16S/01W-13002	M	60.0F	800	81	38	67	3.7	0	244	158	92	1.4	.10	--	585	358	1.5
				15.5C	8.1	971	4.04	3.13	2.91	.09	.00	4.00	3.29	2.59	.02	--	561	159	
						40	31	29	1			40	33	26					
3-26.00		WEST SANTA CRUZ TERRACE																	
06/20/73	5050 1445	11S/02W-19A01	M	62 F 7.6	1600	13	6.0	256	2.5	0	230	107	223	12.0	1.20	--	756	57	14.7
				17 C 8.3	1370	.65	.49	11.14	.06	.00	3.77	2.23	6.29	.19	--	734	0		
						5	4	90			30	18	50	2					
06/15/73	5050 1215	11S/02W-21M01	M	68 F 7.3	800	52	6.4	60	3.1	0	98	127	60	2.1	.20	--	395	156	2.1
				20 C 8.1	644	2.59	.53	2.61	.08	.00	1.61	2.64	1.69	.03	--	359	76		
						45	9	45	1		27	44	28	1					
06/15/73	5050 0930	11S/02W-22M01	M	71 F 7.3	1050	56	8.4	114	4.4	0	121	132	128	4.5	.50	--	546	174	3.8
				22 C 8.0	923	2.79	.69	4.96	.11	.00	1.98	2.75	3.61	.07	--	507	75		
						33	8	58	1		24	33	43	1					

TABLE E-2
MINOR ELEMENT ANALYSIS OF GROUND WATER

State Well Number	Date Sampled	Constituents in Milligrams per Liter*						
		Arsenic Lithium	Barium Manganese	Cadmium Mercury	Chromium Selenium	Copper Strontium	Iron Zinc	Lead
NORTH COASTAL REGION 1-00.00								
SANTA ROSA VALLEY 1-18.00								
SANTA ROSA AREA 1-18.01								
06N/09W-03R84 M	5-24-73	0.00d 0.01d	-- --	-- --	-- --	-- --	-- --	--
07N/08W-30P01 M	7-26-73	-- --	-- 0.01t	-- --	-- --	-- --	0.00t --	--
07N/09W-09F01 M	7-26-73	-- --	-- 0.04t	-- --	-- --	-- --	2.9t --	--
08N/09W-13J80 M	7-17-73	0.02d 0.05d	-- 0.97t	-- --	-- --	-- --	0.33t --	0.00t
MISCELLANEOUS AREA 1-80.00								
05N/08W-21L01 M	7-17-73	0.00d 0.00d	-- 0.00t	-- --	-- --	-- --	0.14t --	0.00t
06N/10W-36N80 M	7-17-73	0.00d 0.00d	-- 0.01t	-- --	-- --	-- --	0.59t --	0.00t
06N/11W-22K01 M	7-17-73	0.00d 0.00d	-- 0.00t	-- --	-- --	-- --	0.02t --	0.00t
08N/07W-05K80M	5-16-73	0.00d 0.08d	-- --	-- --	-- --	-- --	-- --	--
09N/13W-32R01 M	5-16-73	0.00d 0.02d	-- --	-- --	-- --	-- --	-- --	--
10N/10W-23B03 M	5-17-73	0.00d 0.02d	-- --	-- --	-- --	-- --	-- --	--
10N/13W-07N80M	5-16-73	0.00d 0.00d	-- --	-- --	-- --	-- --	-- --	--
10N/14W-12P80 M	5-17-73	0.00d 0.06d	-- --	-- --	-- --	-- --	-- --	--
LOWER RUSSIAN RIVER VALLEY 1-98.00								
07N/11W-14E02 M	5-16-73	-- 0.00d	-- --	-- --	-- --	-- --	-- --	--
SAN FRANCISCO BAY REGION 2-00.00								
PETALUMA VALLEY 2-01.00								
03N/06W-16H01 M	7-27-73	-- --	-- 0.00t	-- --	-- --	-- --	0.51t --	--
04N/06W-08E01 M	7-27-73	-- --	-- 0.01t	-- --	-- --	-- --	0.03t --	--
04N/06W-21F80 M	5-17-73	0.00d 0.06d	-- --	-- --	-- --	-- --	-- --	--
04N/06W-27N01 M	5-17-73	0.00d 0.03d	-- --	-- --	-- --	-- --	-- --	--
05N/06W-33H80 M	5-17-73	0.03d 0.03d	-- --	-- --	-- --	-- --	-- --	--
05N/07W-20L03 M	5-16-73	0.00d 0.04d	-- --	-- --	-- --	-- --	-- --	--
NAPA-SONOMA VALLEY 2-02.00								
SONOMA VALLEY 2-02.01								
04N/05W-03C01 M	5-16-73	0.01d 0.04d	-- --	-- --	-- --	-- --	-- --	--
04N/05W-34D80 M	5-16-73	-- 0.04d	-- --	-- --	-- --	-- --	-- --	--
05N/05W-19L01 M	5-16-73	0.00d 0.04d	-- --	-- --	-- --	-- --	-- --	--
05N/05W-28R01 M	7-30-73	-- --	-- 0.03t	-- --	-- --	-- --	0.10t --	--
SANTA CLARA VALLEY 2-09.00								
SOUTH BAY AREA 2-09.02								
06S/02W-20N01 M	7-09-73	0.0000 0.000	0.0 0.00	0.000 0.0004	0.002 0.0003	0.00 0.36	0.00 0.00	0.000

* d = dissolved, t = total

Appendix F
WASTE WATER DATA

Appendix F, "Waste Water Data", which appeared in certain volumes of Bulletin No. 130 series, has been discontinued. For information regarding waste water, the reader is referred to the recently reactivated Bulletin No. 68 series: "Inventory of Waste Water Production and Waste Water Reclamation Practices in California".

Please note the data presented in Bulletin No. 68 are on a calendar year basis rather than a water year basis as is the case in Bulletin No. 130.

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